Austria ... Sch. 18	Indonesia .. Rp 2500	Portugal ... Esc 80
Bahrain .. Din 0.650	Italy .... L 1300	S Arabia . Rls 6.00
Belgium ... BFr 42	Japan Y550	Singapore . S$ 4.10
Canada ... C$1.00	Jordan ... Fils 500	Spain .... Pta 110
Cyprus ... C£0.60	Kuwait ... Fils 500	Sri Lanka ... Rup 30
Denmark .. Dkr 7.25	Lebanon .. L£ 8.00	Sweden .. Skr 6.50
Egypt .... E£1.00	Luxembourg . LFr.42	Switzerland SFr 2.70
Finland .. Fmk 6.00	Malaysia .. Rin 4.25	Taiwan ... NT $85
France .. FFr. 6.00	Mexico .. Pes 300	Tunisia .. Din 0.600
Germany . DM 2.20	Morocco .. Dh 6.00	Turkey .... L 210
Greece ...... Dr 70	Netherlands . Fl 2.50	U.A.E. ... Dh 8.50
Hong Kong . HK$ 12	Norway .. Nkr. 6.00	U.S.A. $1.00
India .... Rup. 15	Philippines . Pes. 20	

FINANCIAL TIMES

EUROPE'S BUSINESS NEWSPAPER

No. 29,806 | Monday December 16 1985 | D 8523 B

South Africa: a time to be brave, Page 12

World news | Business summary

SA police clash with blacks at rally

South African riot police used teargas and whips in clashes with thousands of blacks after an anti-apartheid rally in Durban.

Demonstrators demanded the unconditional release of jailed African National Congress (ANC) leader Nelson Mandela and celebrated the dropping of treason charges against 12 leading United Democratic Front (UDF) activists.

The rally, attended by about 6,000 people, was the first UDF gathering to be permitted by the authorities since the declaration of the state of emergency on July 21 under which several thousand UDF members have been arrested. **Details, Page 3; South Africa economy, Page 12.**

Shultz on attack

US Secretary of State George Shultz visited two Warsaw Pact capitals, Bucharest and Budapest, after challenging in West Berlin the Soviet Union's domination of Eastern Europe. **Page 14**

Ban to be lifted

Bangladesh President Hossain Mohammad Ershad said a ban on political activity would be lifted from January 1. The main opposition group described the offer as inadequate and vowed to go ahead with their protest plans.

New finance chief

Moscow appointed Boris Gostyev as its new Finance Minister to replace Vasily Garbuzov who died last month. Gostyev has worked in the finance and planning department of the central committee secretariat since 1963. *Page 2*

India elections

Indians pass judgment on Prime Minister Rajiv Gandhi's first year in office today with seven national parliament by-elections and 12 state assembly by-elections. **Page 3**

Iran frees PoWs

Iran released 97 disabled Iraqi prisoners of war on humanitarian grounds and flew them to Turkey for repatriation.

Police stop protest

Polish police backed with water cannon stopped supporters of the banned trade union Solidarity from gathering in Gdansk at a memorial to strikers killed by security forces 15 years ago.

Basque found dead

The handcuffed body of a Basque who disappeared last month while in police custody was found in a river near the northern Spanish city of Pamplona. **Page 3**

Banknote error

Several hundred thousand new Yugoslav banknotes have been issued bearing the wrong date of the death of Marshal Josip Broz Tito, founder of the post-war communist state. The notes will be gradually phased out.

Privatised spies

Bonn Interior Minister Friedrich Zimmermann confirmed that West Germany's main intelligence agency, the BND, took money from private businesses, while hunting for missing toxic chemicals in 1983.

'No ferry crossings'

Townsend Thoresen said its cross-Channel ferry services from Dover were expected to remain at a standstill, in spite of a planned return to work today by striking seamen.

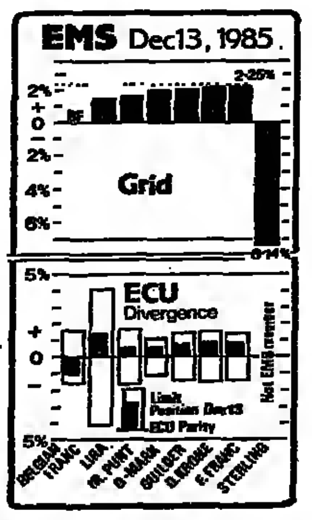
World Cup draw

The draw for the first round of next year's World Cup in Mexico was made. Group A is Italy, Bulgaria, Argentina, South Korea; B: Mexico, Belgium, Paraguay, Iraq; C: France, Canada, Soviet Union, Hungary; D: Brazil, Spain, Algeria, Northern Ireland; E: West Germany, Uruguay, Scotland, Denmark; F: Poland, Morocco, Portugal, England.

Israel's monthly inflation up 0.5%

ISRAEL'S inflation rate rose by 0.5 per cent in November, lowest monthly rise for almost nine years.

EUROPEAN Monetary System: The Italian lira regained its place at the top of the EMS but finished below



its best level of the week. It replaced the French franc which fell quite sharply against the D-Mark towards the end of the week. The D-Mark showed a general improvement, helped by renewed dollar weakness. The Belgian franc remained the weakest currency but stayed well within its divergence limit.

The chart shows the two constraints on European Monetary System exchange rates. The upper grid, based on the weakest currency in the system, defines the cross rates from which no currency (except the lira) may move more than 2¼ per cent. The lower chart gives each currency's divergence from its "central rate" against the European Currency Unit (ECU), itself a basket of European currencies.

TIN: International Tin Council, which owes millions of pounds to bankers and London Metal Exchange brokers, says it will decide on Wednesday whether to negotiate with creditors. **Page 14**

EEC has imposed a record Ecu 10m ($8.7m) fine on Dutch group Akzo Chemie for trying to squeeze small British rival Engineering and Chemical Supplies of Stonehouse, Gloucestershire, out of a market it dominated. **Page 3**

BRITISH AIRWAYS, state-owned airline, is expected to show it is financially strongly on course for privatisation with pre-tax profits of about £200m ($287m) for the first six months of financial year to end-September, compared with £169m a year ago.

UNION CARBIDE, multinational chemical company facing a hostile takeover bid from GAF of the US, is selling its worldwide film-packaging business for $230m. **Page 15**

GEMINA, financial vehicle owned by Fiat, Pirelli and other leading Italian companies, is to take majority control of the Rizzoli publishing group which includes the Corriere della Sera, Italy's major newspaper.

CHLORIDE will be paid $9m by the US Electric Power Research Institute for use of research behind Chloride's sodium-sulphur "super battery." **Page 5**

PRICE WATERHOUSE, third biggest UK accountants, reported fee income up 23.7 per cent at £94.5m ($135.7) for the year ended September, its biggest annual growth for 20 years.

VOLKSWAGEN do Brasil is investing $600m in expansion during the next four years.

BRITISH AEROSPACE has won a $120m contract with Indonesia to supply the Rapier missile system to its army. **Page 4**

AIRBUS INDUSTRIE vice president Johann Schaeffler will leave after 11 months in the post to become chief executive of Dornier, West Germany's No. 2 aerospace company, from February.

EEC reformers urge compromise with Euro MPs

COMMITTED reformers of the EEC seeking substantial changes to streamline decision-making and extend the powers of the European Parliament will launch a last effort today to reopen the modest reform package approved by the Community heads of government at their Luxembourg summit two weeks ago, writes **Quentin Peel** in Brussels.

Their initiative is certain to be resisted by member states such as Denmark and the UK, for whom the Luxembourg agreement represents the outer limits of any move to restrict national sovereignty and reinforce the Community institutions.

If today's meeting of EEC foreign ministers fails to extend the reforms, however, there is a real danger that the measures will be rejected by the European Parliament, and as a result by the Italian Parliament and Government. No reform of the Treaty of Rome is possible without unanimity.

Italy, Belgium and the European Commission itself are keen to go some way further to meet the demands of MEPs by setting a strict time limit on the decision-making process of the Council of Ministers.

The issue goes to the heart of the unwritten rules of national veto – the so-called Luxembourg compromise – whereby member states may individually delay indefinitely reaching any majority decision by citing their "vital national interest."

The parliament wants to ensure that if the member states fail to agree within three months on n Common Market regulation proposed by the Commission, then the version approved by the MEPs would stand.

The foreign ministers also have to decide what will happen according to the reforms, if the parliament rejects outright a "common position" agreed by the Council of Ministers.

Apart from the threatened clash over parliamentary powers, the ministers must also try to get e range of national objections lifted on key subjects supposed to be decided in future by majority voting instead of unanimity.

Those include measures to enable EEC-wide recognition of professional qualifications, regulations to open up air and sea transport to free competition, and to liberalise capital movement.

Britain has a strong reservation – inspired by Mrs Margaret Thatcher, the Prime Minister – against a new chapter in the Rome Treaty providing for rules to promote social policies and protect the working environment, to be decided by majority voting. Mrs Thatcher insisted in Luxembourg that only unanimity would protect small businesses from an excessive burden of new regulations.

The irony is that Britain is thereby opposing the one reform to which the Danish Government is committed, and which has been included largely to persuade Denmark to go along with the whole package.

Another divisive issue unresolved by the heads of governments is the format for the reforms. France has proposed bringing the institutional reforms of the Rome Treaty and a new treaty on foreign policy co-operation together under the title of a Treaty of European Union.

No one else wants more than a form of words to do so, although the French proposal would provide for a separate secretariat to administer it. For Denmark, even the form of words may still prove too strong.

If the foreign ministers can agree on all the outstanding loopholes, the reforms will be submitted for legal drafting, and then to the national parliaments of the Community for ratification during next year. The ministers will meet today and tomorrow.

UK Defence Minister presses European solution for Westland

BY JOHN HUNT AND BRIDGET BLOOM IN LONDON

MR Michael Heseltine, the UK Defence Secretary, will continue to press in Cabinet this week for a European solution for Westland, Britain's ailing helicopter manufacturer, against strong opposition from Mr Leon Brittan, the Trade and Industry Secretary.

The differences between leading Cabinet members have become a major political embarrassment to the Government and Mr Brittan is expected to make a statement to the House of Commons today in an effort to clarify the issues.

The row erupted over the weekend, following Westland's rejection on Friday night of a rescue bid from four European aerospace companies.

Mrs Margaret Thatcher, the Prime Minister, may have to adjudicate between Mr Heseltine, who would like the rejected bid to be taken direct to shareholders, and Mr Brittan, who believes that the company should be left to conclude its preferred deal with Sikorsky, the subsidiary of the US conglomerate, United Technologies.

Sir John Cuckney, Westland's chairman, is understood to have written to Mrs Thatcher asking her to support his choice of Sikorsky.

The dispute between the two ministers has been brewing since Mr Heseltine backed the all-European rescue offer three weeks ago. Clear divisions emerged over the weekend with Mr Heseltine, representing Westland's largest customer, taking a clear interventionist stance and Mr Brittan, head of Westland's sponsoring ministry adopting a much more *laisser faire* attitude.

Mr Heseltine maintains that Westland might become a mere subcontractor for the Americans under the United Technologies deal. In a radio interview yesterday he said his department had a crucial interest in ensuring that Westland did not become just a "metal basher" for overseas interests.

He has seen in the Westland dilemma a chance to rationalise Europe's helicopter industry currently facing serious over-capacity, and tough US competition.

Since mid-November, he has sought and got the support of the French, Italian and German governments for a rescue bid involving a consortium of Aerospatiale of France, Agusta of Italy, Messerschmitt-Bölkow-Blohm and British Aerospace. A late entrant last Friday was GEC, the UK electrical group. Lord Weinstock, managing director, said at the weekend that GEC was ready to put money into the rescue offer, though it has not been formally involved in the consortium's negotiations.

In a statement at the weekend Mr David Horn, managing director of Lloyds Merchant Bank which is acting for the four companies, said it had been agreed to take the consortium offer direct to shareholders, following the Westland refusal.

Mr Brittan still firmly believes that the choice of rescuer should be left to Westland. Mrs Thatcher is believed to share his view, although some ministers and some conservative backbenchers are backing Mr Heseltine.

Sir John Cuckney, Westland's chairman, will on Thursday recommend to a shareholders' meeting that they accept the United Technologies/Fiat offer for 29.9 per cent stake in the company with an option to increase the stake later.

Full details will be announced on Thursday with the publication of preliminary results for the year ending Sept 30 and details of the company's capital reconstruction.

The rival offer from the European companies is also for a 29.9 per cent shareholding which would be equally divided between the four aerospace companies. The critical element, in both offers is a proposal to fill the company's gap in its order books between now and about 1990, when it is expected to start building a new heavyweight naval and utility helicopter, the EH101, with Agusta of Italy.

Sir John Cuckney repeated yesterday that the Sikorsky offer, which is believed to centre principally but not exclusively on the manufacture under licence of Sikorsky's medium weight Black Hawk helicopter, was in both the short and longer term interests of the company.

United Technologies and Fiat between them had guaranteed work over the next three years "irrespective of the market place or market

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Defence industry survey, Pages 21–26

French group to take stake in Channel link

BY DAVID MARSH IN PARIS AND ANDREW TAYLOR IN LONDON

FRANCE'S state-controlled Caisse des Dépôts et Consignations financial group will take a "significant" stake in the fixed link across the Channel, whichever of the four competing schemes is chosen, Mr Robert Lion, the group's chief executive said.

Mr Lion's statement represents the first unconditional offer from the French of a capital participation in the Channel link. The Caisse, which has a balance sheet of more than FFr 1,100bn ($143m) and collects deposits from state savings banks, is the largest financial concern in France.

Four fixed-link schemes have been submitted to the two governments, which are expected to announce next mooth which, if any, of the proposals should go ahead.

A joint Anglo-French report assessing the four schemes, which involve various combinations of bridges and tunnels, is to be submitted to ministers this week.

The Caisse has been preparing its position on the fixed link, as have other big French investors such as the nationalised insurance groups. Mr Lion said, however, that the Caisse had made its decision to take a stake on its own and not in co-ordination with other groups.

He said the Caisse had no declared preference for any of the rival promoters bidding to build the link but would be backing the victor. It was looking for participation purely as n financial investment.

The Caisse said it planned to take its stake in the form of shares and convertible bonds but Mr Jacques Delmas-Marsalet, deputy director general in charge of financial investments, said the group would prefer to have as large a proportion as possible in convertible bonds.

Caisse said the investment would follow logically from its role in helping to finance France's motorway network.

Meanwhile, Britain and France are understood to have provisionally agreed that sales of duty-free goods should be allowed on the fixed link.

The two governments are understood to be preparing a proposal to take to Brussels next year in an attempt to persuade their EEC partners that duty-free sales, which are not permitted at European land frontiers, should be allowed on the fixed link.

Some EEC members are already critical of duty-free sales on cross-Channel ferries, which they regard as unfair competition when the Community is trying to establish common tariffs between member countries.

Cross-Channel ferry operators have also appealed to the two governments not to allow duty-free sales on a fixed link that is likely to take a large slice of their business.

The report, to be presented to the two governments this week, is unlikely to give a clear recommendation for any one of the four schemes.

Instead it will provide detailed appraisal of each discussing its merits and disadvantages, and how

Continued on Page 14

Survey, Section III

Central banks reluctant to seek fall in $

By Philip Stephens, Economic Correspondent, in London

CONCERN to prevent a realignment of currencies in the European Monetary System (EMS) ahead of general elections in France next March has tempered the commitment of European central banks to seek s further steep fall in the dollar's value.

Senior European monetary officials say that West Germany, in particular, has been reluctant to launch another attack on the US currency, although the Bundesbank and other central banks will intervene to prevent the dollar from rebounding.

The officials say that governments were worried after the Group of Five agreement in September that intervention against the dollar could provoke an EMS realignment. That concern has been heightened by the recent signs of strain in the system as the US currency has continued to fall.

A falling dollar has traditionally caused tension in the EMS because a larger proportion of the funds moving out of the US currency has gone into D-Marks rather than French francs or Italian lira.

The central banks of France, Italy and Belgium are thought to have intervened in recent weeks to support their currencies against the D-Mark amid market speculation that governments could be forced into an early realignment.

West Germany's anxiety not to do anything to provoke a reshuffle within the system is said to reflect the strengthening of its monetary ties with France over the past two years.

One official said that the relationship between the finance ministries and central banks of the two countries had improved "enormously" since the low reached during the last major realignment in March 1983.

With the French Government now following prudent monetary and fiscal policies, Bonn was anxious to do everything it could to cement the ties, the official said.

It is acknowledged that central banks cannot be certain that a realignment will be avoided if speculative pressure builds up in the markets. The central banks, however, are expected to co-operate closely to try to head off such a development.

Senior officials from the Group of Five – the US, West Germany, Japan, France and Britain – are to meet in January to review the progress of the intervention accord and

Continued on Page 14

Paris reaches agreement with China to provide nuclear plants

BY PAUL BETTS IN PARIS

FRANCE has reached an agreement in principle with China to supply the nuclear reactors and supervise the construction of China's first nuclear power station to be built at Guandong in Canton at an overall cost of about $4bn.

Mrs Edith Cresson, the French Trade and Industry Minister, said that the agreement was a major breakthrough in the seven-year negotiations between France and China. "We reached an accord on price and n mission is leaving for Peking on Wednesday to finalise the financial agreement," she said at the weekend.

Framatome, the French nuclear power reactor company, will supply the two 900 Mw reactors while Eléctricité de France (EdF), the French state electricity utility, will supervise the construction of the power station. GEC, the British electricals group, is involved in parallel negotiations with China to supply the non-nuclear equipment, including turbines, for the plant.

GEC, which is bidding to supply two 950 Mw turbine generators and associated switchgear to the plant, said at the weekend that it was still negotiating with China over terms. The company broke off talks with China in late October, returning a fortnight later after China threatened to seek competitive tenders.

French industry officials said France's share of the total contract was expected to amount to about FFr 10bn ($1.3bn) of which at least 60 per cent should go to Framatome.

Mr Jean-Claude Leny, the chairman of Framatome, said that the agreement in principle reached in Paris on Friday with Li Peng, China's Deputy Prime Minister, was a "major step forward." A formal letter of intent is now due to be signed before March 1 next year. But Mr Leny said "substantial parts of this letter of intent are ready."

France has conceded favourable financial terms to China to secure the large order. China is expected to pay less for its nuclear plant than EdF pays for the same equipment in France.

Mrs Cresson acknowledged that France had been forced to offer "attractive financial conditions" but added that China was the only country in the world to have a major new nuclear programme and thet France was now well placed for future orders.

France is understood to have offered credits carrying 9.85 per cent interest rates with repayments starting only after 6 to 7 years and stretched over 12 to 15 years. Industry sources claimed that only a few outstanding issues like banking commissions still bad to be settled but were not expected to upset the final negotiations.

The French Government and Framatome have worked hard to secure the Chinese deal because of its implications for France's nuclear industry. The first Chinese order and potential other future orders for China's long-term nuclear programme will provide Framatome with much needed new business at a time of general stagnation of nuclear orders from abroad and from EdF.

The argument over the pricing of GEC's part of the contract appears to be continuing. The original GEC bid was submitted to China in March 1984. Like the Framatome bid, GEC's proposals contained n financing element, put together by the group's advisers Schroder Wagg. GEC is seen as having a weaker negotiating position than Framatome, since the more conventional equipment which it is bidding to supply is provided by several other manufacturers.

CONTENTS

OVERSEAS NEWS

CARTAGENA GROUP SUMMIT TO CALL FOR EXTRA MEASURES

Baker plan gets cool response

BY JIMMY BURNS IN MONTIVEDEO

LATIN AMERICAN officials have reacted unenthusiastically to the public declaration of support by British, Japanese and *US banks for the developing* country debt initiative launched in October by Mr James Baker, the US Treasury Secretary.

"If the banks think that we are all now just going to fall into *line behind* Baker, *they've* got another think coming," said one senior official.

Eleven Latin American countries have agred to press for a package of additional measures *aimed at easing the region's* \$350bn (£250bn) debt problam. The measures will form the basis of discusion during a two-day summit, starting today, of foreign and economic ministers of the debtor countries known as the Cartagena Group.

In Washington yesterday the World Bank and the IMF issued a joint statement welcoming the banks' public declaration of support for the Baker Plan.

The announcement made jointly by Mr A. W. Clausen, president of the World Bank and Mr Jacques de Larosiere, Managing Director of the International Monetary Fund said banks accounting for an overwhelming majority of claims on heavily indebted middle income countries had welcomed the initiative as "positive and constructive" and confirmed their willingness to play their part.

The announcement is clearly timed to try and encourage the Cartagena group to respond positively to the Baker Plan. This will not however prevent the group from pressing for a package of additional measures.

The group believes the Baker initiative is a political step in the right direction but must be taken further if it is to be made to work. Among the measures expected to be p.essed on the ministerial meeting are:

- Capitalisation of debt interest payments.
- Greatly improved terms and conditions on new commercial loans. The \$20bn contemplated in the Baker plan is considered useful but not enough.
- An increase in the availability of compensatory financing from the International Monetary Fund to make up for the fall in commodity prices and high US interest rates which should be brought down anyway.
- A more flexible linkage between multilateral loans available under the plan and the structural changes expected to be undertaken by the beneficiaries.
- Extended export credits to be maintained after reschedulings.
- An extention of the benefits envisaged under the Baker Plan to other third world countries, particularly those in Central America who are currently excluded.

Some industrialised nations and bankers who had been expectiog more support for the Baker Plan by the mid-month deadline set by the US Treasury, may be disappointed by the response but officials here were anxious to emphasise that the measures were not aimed at confrontation.

The Latin Americans say they want to complement what they consider a vaguely defined plan, and are understood to have rejected flatly more radical measures such as a regional unilateral decision limiting interest payments to a small percentage of exports.

Brazil, Mexico and Argentina, the region's three major debtors, hava agreed moreover, that the Baker Plan deserves a serious response from the ministerial meeting.

Trade shortfall clouds Polish debt talks

BY CHRISTOPHER BOBINSKI IN WARSAW

POLAND's hard currency trade surplus for the first 11 months of the year was worth \$931m (£657m) the Polish Government said at the weekend. The announcement came as an official team prepared to leave for Paris for important debt talks with Western government creditors.

With the surplus lower than originally planned, the meeting will take place against a background of speculation that Poland will not be able to fulfil its financial abligations to Western governments this year.

Last July Poland signed a debt rescheduling agreement on payments worth \$12bn falling due between 1982 and 1984 and another agreement last month on payments worth *\$1.4bn falling due this year.*

But the dearth of fresh Western government credit folowing these agreements makes it impossible, the poles are likely to argue, to cover *initial payments.*

Western diplomats in Warsaw estimate that Poland has payments worth \$1.4bn falling due both to Western banks and goverments between November and January.

Payments to the banks, however, are thought to be flowing more or less smoothly while *the Poles* have always said to governments that should the \$800m worth of fresh credits they have asked for not become available they will have to come back for a further rescheduling.

Only Austria so far has provided some \$40m worth of credit while West Germany is offering DM 100m (£27.6m).

However, the unplanned *fall* in *hard currency* exports this year weakens the Polish case for *greater* latitude on payments as Warsaw has always said the key to increased exports *is* a *growth* in imports suported by credits.

But after 11 months, imports from the West have *risen* by 10.5 per cent of constant prices while export earnings are down by 3.5 per cent. The fall in exports is also out of line with industrial production which is growing at an annual rate of 3.3 per cent.

Moscow names Finance Minister

BY PATRICK COCKBURN IN MOSCOW

THE SOVIET UNION has appointed Mr Boris Gostyev as its new Finance Minister to replace Mr Vasily Garbuzov, who died last month after holding the job for 25 years.

Mr Gostyev previously worked as deputy to Mr Nikolai *Ryzhkov*, the new *Soviet Prime* Minister, when he was head of the economic department of the Communist Party central committee. His appointment as Finance Minister means that there has been a complete turnover in the top four administrative posts in the Soviet economy in the last three months.

Mr Gostyev, a 58-year-old professional economist, has worked in the finance and planning department of the central committee secretariat since 1963. Diplomats note that pressure for Soviet economic reform now comes primarily from the Communist Party while reformers in the 1960s were usually state officials.

Within the last three months Mr Mikhail Gorbachev, the Soviet leader, has appointed new men to four key posts running the economy. They are the Prime Minister, Head of State Planning, Minister of Foreign Trade, and the Minister of Finance. A third of government ministers have been changed by Mr Gorbachev

These new appointments mean Mr Gorbachev's plans for economic reform are much more evident in last month's budget and plan for 1986 than they are in the five-year plan drawn up earlier this year. Capital investment is to increase by the very high figure of 7.6 per cent next year compared to between 3.4 and 3.9 per cent annual growth in investment in the five-year plan. Very high priority is given to machine tools, machine building and high technology.

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OVERSEAS NEWS

UDF members clash with police at Durban rally

BY ANTHONY ROBINSON IN JOHANNESBURG

A RALLY in *Durban* to celebrate the dropping of treason charges against 12 leading United Democratic Front *(UDF)* activists and to demand the unconditional release of jailed African National Congress (ANC) leader Nelson *Mandela* turned into a *violent* confrontation with police yesterday after demonstrators leaving the Curries Fountain stadium stoned police vehicles.

A crowd of singing and chanting black youths streamed out of the stadium after emotional speeches from the released UDF leaders and threw rocks at two police Land Rovers and vehiclea driven by whites. Shops were stoned and looted, eye witnesses said.

Police, supported by army units, then returned in force to beat *back* the demonstrators with tears gas. Many of the demonstrators were forced back into the stadium but were allowed out of another exit which leads to a mainly Indian and black area.

The rally, attended by an estimated 6,000, was the first UDF gathering permitted by the authorities since declaration of the state of emergency on July 21 under which several thousand UDF activists have been arresed. It passed off without incident, except when sections of the crowd moved to bold banners demanding the release of Mr Mandela before the cameras of a police videocamera team seeking to film the *rally* from outside the stadium.

The keynote speech at the rally was to have been delivered by *Mrs Winnie Mandela*, wife of the jailed ANC leader. But she did not appear and the main speech calling for the release of Mr Mandela and further defiance by the UDF was made by Mrs Albertina Sisulu, the 67 year old wife of jailed ANC activist Walter Sisulu, Mra Sisulu is one of the 12 UDF leaders released last week.

On Saturday, eight foreign newsmen were detained by the police while reporting on the funeral of two black unrest victims in Mamelodi, near *Pretoria*.

Anti-police feeling is still strong in the township after the shooting of at least 16 people by police on November 21 which has led to a boycott of white shops in Pretoria. Mr Graham Leach, the BBC radio correspondent, was among the arrested and then released after pointing out that Mamelodi was not in an area covered by the emergency regulations. The incident has led to a formal complaint by the Foreign Correspondents' Association.

Reagan faces uphill battle to save tax reform initiative

BY STEWART FLEMING IN WASHINGTON

PRESIDENT Ronald Reagan is planning a rare trip to Capitol Hill this afternoon to try to rally Republican support for the tax reform initiative which basb een the top domestic legislative priority of bis second term.

But ha faces an uphill task if he is to avoid a humillating defeat in spite of the all-out lobbying effort the White House has been mounting to try and persuade his nominal allies in the House of Representatives to back tax reform.

Last week only 14 Republicans voted in favour of a tax reform plan designed by the Democratic majority on the House Ways and Means Committee. The President wants the *plan passed to allow it to go to* the Senate where the White House bopes the legislation can be amended to make it more *acceptable to Republicans.*

Mr Reagan also faces another thorny issue this week when he seems certain to be forced to decide whether or not to approve farm legislation which will cost the US billions of dollars more than it has been hudgetiog for. The prospect of such a large extra bill comes at a time wbeo the White House is announcing that the President will propose billions of dollars of budget cuts, including medical supports for the *elderly, in his 1987 budget plan.*

On Saturday a conference committee of the House and the Seoate reached agreement on a *new farm Bill* which calls for major reforms in agricultural policy hut which is estimated to cost some \$2hn more than the *Administration* wants in its first three years.

Among the Bill's provisions is a proposal that the Administration should toughen sugar import quotas in order to reduce the cost of the domestic sugar subsidy. It also proposes increased support for export promotion aa part of a drive to try to recover lost overseas markets.

Mr Reagan bas been threatening to veto budget busting eppropriations, but he is under heavy pressure to back the *farm* legislation which should clear Congress early this week.

● House and Senate negotiators have reached a compromise on the fiscal year 1986 defence budget. It would provide for the first time sioce 1969, federal financing for chemical weapons, hut bans further anti-satellite weapons tesis an dcuts by \$1bn the \$3.7bn which President Reagan had requested for research for the Strategic Defence Initiative, the so-called Star Wars space *weapons* programme.

The agreement means Congress is now close to completing *its catch all* spending, or "reconciliation" Bill which approves funding levels for federal government programmes *which have not been specifically* authorised in other appropritions hills. Congress haa until tonight, when a temporary funding *Bill* explres, to complete work on a Bill for the President to sign.

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Triumph for hardline greens

By Rupert Cornwell in Bonn

THE HARDLINE fundamentalist wing of the radical West German *Greens* scored a *major* triumph at the party's congress at Offenburg near Strasbourg, yesterday, at the expense of the "realist" *faction*, keen on powersharing with the opposition Social Democrats (SPD).

Their victory was sealed with the *rejection* by a *conclusive* 468 to 214 margin of motions calling for the dismissal of the three leaders of the Greens' national *executive*, who had been hitterly critical of the party's decision to form a coalition with the SPD to govern the state of Hessen.

A truculent Mrs Jutta Ditfurth, one of the three, declared that she continued to regard West Germany as a police state, and promised her enduring opposition to the deal in Hesse.

But Mr Otto Schily, a prominent Green MP and a leader of the party's defeated moderate wing, angrily attacked Mrs Duitfurth afterwards. "Anyone who calls the Federal Republic a *police state* doesn't *know* what a police state is."

Mr Schily, celebrated for his effectiveoess as a member of *the Parliamentary committee* which probed the Flick political pay-off scandal, described the outcome of the vote as "a defeat for the pragmatic, realist wing of the party."

Body of missing Basque detainee found in river

BY TOM BURNS IN MADRID

THE BODY of a Basque terrorist suspect who *allegedly* escaped *the* Civil Guard after his detention nearly three weeks ago was discovered floating in a river yesterday by the Civil Guard security forces. The discovery looked likely to increase further protests in Spain over his detention, disappearance and, now, his death.

The case of Mr Mikel Zabalza, a San Sebastian bus driver, has highlighted the issue of the alleged severe mistreatment of detainees held in Civil Guard barracks in the Basque country and prompted some of the most severe rioting seen this year in the Basque country.

The body was found less than *half* a mile upstream from where the Civil Guard said Mr Zabalza had escaped. The river had been searched during three *days* last week by frogmen acting under the orders of e San Sebastian judge charged with investigating Mr Zabalza's disappearance.

The Civil Guard have argued that he escaped some hours after his arrest when he was taken, before daybreak, to a remote valley in the Pyrenees to locate an arms cache. Although handcuffed he managed to break free from his guards and *evade* them, according to the official version.

This version has been contested by *Mr Zabalza's girlfriend* and by his cousin who were arrested with him and were subsequently released without charges. Both said they had been mistreated and they alleged that Mr Zabalza was tortured and that the Civil Guard had mounted a cover up to explain away his death under interrogation.

Spain's anti-terrorist legislation allows terrorist suspects to be held by the security forces for a 10-day period before appearing before e judge and without access to either lawyers or to independent medical attention.

● Mr Zabalza's girlfriend, Idoia Ayerbe, told reporters in San Sebastian *last night* that she was stripped and beaten by police, Reuter reports from Pamplona.

"I first saw Mikel at the Intxaurrondo barracks with *his hands* tied back and e plastic bag over his head," she said.

Mr Ignacio Ibargarai, another of those detained, said he was beaten on the head and testicles by police who put e plastic bag over his head.

Several people were injured yesterday in the northern coastal city of San Sebastian in clashes with police to protest against the disappearance of Mr Zabalza, officials said.

● Mr Felipe González, the Prime Minister, *may have to drop plans* to visit Cuba as a result of a diplomatic row after the expulsion of four Cuban officials, the Madrid daily *newspaper El Pais said yesterday,* Reuter reports from Madrid.

Quoting high-ranking Spanish officials, El Pais said that Mr González had planned to make his first official visit to Cuba by next March.

Spain expelled on Saturday Mr Angel Leon Cervantes, the Cuban vice-consul in Madrid and three other Cuban Embassy staff accused of trying to kidnap a Cuban defector at gunpoint.

Commission fines Dutch company

By Ivo Dawnay in Brussels

THE EEC Commission has imposed an unprecedented Ecu 10m (£6.1m) fine on Akzo Chemie, the chemical division of the Dutch multi-national Akzo, for attempting to squeeze a small British rival out of a key market.

The penalty—the largest ever set under the Community's competition rules—will almost certainly be challenged by the company in the European Court.

However, the Commission warned at the weekend that *it intends to penalise those* that abuse a dominant market position with fines fixed "at a dissuasive level."

The Akzo Chemie case centred on the efforts of a British company, Engineering and Chemical Supplies (ECS) of Stonehouse, Gloucestershire to enter a market dominated by the Dutch company.

ECS, a prodncer of peroxide of benzoyl, an agent used to whiten flour, decided in 1979 to sell the chemical as a catalyser for the production of thermoplastics. According to the *Commission, Akzo* Chemie, which holds more than 50 per cent of this European market, responded by threatening to undermine ECS by selling at a loss to the flour trade.

A Commission investigation at Akzo's Dutch and British offices uncovered a document confirming that senior officials of the company had issued ECS with an ultimatum to leave the plastics market within a week or face retaliation.

Assam poll test for Gandhi

By John Elliott in New Delhi

INDIA HOLDS a mini-general election today when 10m people in the troubled north-eastern state of Assam go to the polls for state assembly and parliamentary seats, and by-elections are held in seven other parliamentary constituencies across the country.

The polls in Assam follow an accord reached four months ago on the state's refugee problems, *while* on a wider front the voting will also test the popularity and political success of Mr Rajiv Gandhi, Prime *Minister*, one *year after* he won a landslide general election victory.

The polls coincide with a sudden groundswell of opposition against Mr Gandhi's administration from leading industrialists who are incensed and worried by the arrest last week on foreign exchange and customs violation charges of Mr S. L. Kirloskar, an 82-year-old pioneer of Indian industry, after 50 of the *Kirloskar* engineering group's premises had been raided by Finance Ministry law enforcement *officers*.

Ministry of Finance officials say privately the arrest is designed to be e high-profile warning to other businessmen to end corrupt practices.

When Assam last went to the polls nearly three years ago in early 1983, some 3,000 people were killed in uncontrolled mob violence. Today there is no threat of such mass unrest although there will be tight security—and the election will be a stern test of the success of the accord.

Space agencies split over laboratory project

BY PETER MARSH

THE ARCANE issue of the wandering space laboratory is likely to cause ructions at a high-level meeting that begins today in Washington to discuss international collaboration in the heavens.

The US National Aeronautics and Space Adminiatration haa called the four-day gathering, which officials from Japan, Canada and the 11-nation European Space Agency will attend, to thrash out plans for a \$12bn international manned space station proposed for 1993.

According to Nasa's strategy, the different international groups will each contribute to building the orbiting outpost, which is due to bouse a crew of eight people wbo will work mainly on scientific experiments such as low-gravity materials processing.

High on the agenda for the meeting is a proposal from Europe tbat its part of the orbiting base—a \$2bn laboratory for scientific experiments called Columbus—will periodically leave tbe main core of the station for separate excursions into the cosmos.

This bas annoyed Nasa, whicb says the scbeme would upset the overall planning for the station and cause unnecessary problems in the extra *docking* arrangements that would be required.

"Our vision for Columbus is that it would be permanently *attached* to the space station," said Mr Bob Freitag, deputy associate administrator in Nasa's space station office.

"The *different* parts of station will fit together like those for an airplane—they will be like the wings, the fuselage and the tail. You can't have an airplane where you take off the wings and loan them to someone else when you feel like it."

For its part, the Paris-based ESA accuses Nasa of being too conservative. "The scheme has technical advantages. It is another way to conceive the overall programme," aaid an official at the European agency.

The agency says a detachable laboratory could be useful in that, by freeing itself from the bustle aboard the core of the base, it could house experiments in disciplines such as astronomy where quiet conditions are vital.

Behind the European plan is a long-term strategy, conceived initially by France and West Germany, Western Europe's *two* biggest space powers, that Columbus should be a stepping stone to an independent space station.

The purpose of this week's meeting, which is to last until Thursday, is to discuss comprehensively for the first time the different ideas that the participating countries have for the station.

According to Nasa's plans, the overall sbape of the station is to be fixed by next April. After this, the differnt countries hava to decide formally on the amount of cash they want to pay for the venture, ready for detailed design work to start in 1987.

WORLD TRADE NEWS

France considers US technology for fighter engine

BY DAVID MARSH IN PARIS

FRANCE IS considering the possibility of drawing on US technology to help construct the engine for its advanced combat aircraft due to compete with both European and US fighters in the 1990s.

French Defence Ministry officials said at the weekend the question of joint development of the engine between Snecma, the French state-owned aero-engine company, and General Electric, of the US, was a "subject for reflection."

Mr Caspar Weinberger, US Defence Secretary, offered US industrial co-operation over the French fighter in a letter last week to Mr Paul Quiles, the French Defence Minister.

French officials from both government and industry stressed at a ceremony on Saturday to unveil the Dassault-Bheguet company's Rafale fighter prototype—on which the future French aircraft will be based—that the US offer was being considered seriously.

The US has held out a similar collaboration proposal over a rival aircraft being constructed for the 1990s by Britain, West Germany, Italy and Spain. The two European aircraft will be competing as a result of failure of the five governments concerned to agree on a joint project this summer.

Co-operation between the US and France over a fighter project would mark a switch in France's traditional desire for maximum technological todependence from the US in military affairs. Any final decision to go ahead with co-operation would require top-level political approval.

Snecma and General Electric already have long-standing co-operation in civil eero engines. Extending this to the military sector would pose delicate questions over transfer of US technology. Crucially, the need to acquire authorisation for acquisition of US know-how and equipment could constrain France with unwelcome US conditions concerning its aircraft export policies.

French plans up to now have envisaged the new fighter aircraft being powered by a Snecma engine, the M.88, already at an advanced testing stage. The Rafale prototype is, however, being powered by two GE F.404 engines acquired—under strict conditions—from the US.

Snecma said: "Nothing is exclnded" over possible co-operation with GE in military engines.

Mr Bruno Revellin-Falcoz, Dassault's managing director for technical affairs, said the US letter merited consideration. However, voicing reserves over the co-operation idea at Dassault—which has never drawn on US help in 30 years of building jet aircraft—he pointed out that his company was in competition with the Americans. "The proposition needs to be analysed with a lot of care."

Mr Revellin Falcoz said Dassault was in contact with the Netherlands, Belgium and Norway, as well as other European countries, over possible joint development of the future fighter.

World Economic Indicators

RETAIL PRICES (1980 = 100)

	Oct 85	Sept 85	Aug 85	Oct 84	% change over previous year
W. Germany	721.1	120.9	120.7	119.0	1.8
France	159.8	159.3	159.1	152.3	4.9
Italy	194.6	192.3	191.3	178.4	9.1
Netherlands	123.0	122.8	122.2	120.9	1.7
Belgium	141.4	141.5	141.3	136.0	4.0
UK	143.0	142.8	142.9	135.6	5.4
US	131.5	131.1	130.9	127.5	3.1
Japan	116.1	114.7	113.6	113.7	2.1

Source: Eurostat

Indonesia orders Rapiers in $120m deal

By Kieran Cooke in Jakarta

FOR THE second time in a little over 12 months, Britain has won a multi-million dollar contract for the supply of missile systems to Indonesia. In Jakarta on Saturday officials of the British Ministry of Defence and British Aerospace (BAe) concluded a deal with the Indonesian Army worth $120m (£82.7m) for the sale of units of the Rapier missile system. A similar contract was signed with Indonesia a year ago for the Rapier.

Indonesia is fast becoming a major market for British weapons sales. BAe has sold 20 Hawk trainers to the Indonesian Air Force and is also hopeful of substantial orders for its new single-seater Hawk fighter.

Discussions are said to be well advanced on the sale of up to 600 of the British-built Scorpion light tanks to the Indonesian Army. It is understood that a small number of Scorpions will be delivered to Indonesia in battle-ready condition. The remainder are likely to be manufactured under a collaborative programme with Nurtanio, the Indonesian state aerospace and arms industry.

Iraq to pay debt with oil

IRAQ is to settle part of its commercial debt with Italy by supplying it with crude oil, writes James Buxton in Rome. The deal was reached in Baghdad last week by Mr Nicola Capria, the Italian Trade Minister.

Iraq owes Italy about L3,700bn (£1.5bn) in commercial debt. Of that some L700bn is in short term debt.

The Baghdad Government has agreed to supply Italy with $300m (about L500bn) worth of crude oil in settlement of the bulk of its short term debt.

Unlike many other deals of this kind, Iraq will price the crude oil at the spot market price prevailing at the time of the transaction, instead of at the Organisation of Petroleum Exporting Countries (Opec) official price.

VOLUNTARY RESTRAINT MAINTAINED ON SHIPMENTS TO EEC

Japan keeps VCR export curbs

BY JUREK MARTIN IN TOKYO

JAPAN IS to continue to apply voluntary export restraints on the shipments of six commercially sensitive products, including video cassette recorders, to the European Community.

The Japanese decision, announced over the weekend by the Ministry of International Trade and Industry (Miti) comes on the eve of the EEC Council meeting in Brussels at which an increase in the import tariff on Japanese VCRs from 8 to 14 per cent is expected to be approved.

Miti said that it would continue to monitor the exports of VCRs, colour television sets and tubes, cars, light commercial vehicles, forklift trucks and numerically controlled machining centres next year. If and when the volume or export prices of any of the items went up appreciably, Japan would confer with the EEC over possible remedies.

In the case of VCRs, which Miti said was the prime EEC concern, the monitoring process will bear in mind "that 1.5m to 1.7m sets is the appropriate shipment volume for next year." This year's direct exports are expected to be about 1.8m units, well within the 2.25m set ceiling in the current voluntary restraints programme.

The volume of VCR exports to the EEC has been declining as more and more Japanese companies have established European manufacturing operations and as the European industry has begun to recover.

EEC officials here emphasised that the Japanese announcement was "unilateral" and had not been "negotiated" with the EEC. They doubted whether it would have any impact on the Council meeting in Brussels this week, and suggested that the proposal to raise the duty on VCRs was probably "irrevocable."

The Japanese commitment to extend export restraint is part of a deliberate policy to head off protectionist retaliation.

Some indication of the importance of this was provided over the weekend with the reports out of Washington sharply critical of Japan's apparent threat to discontinue curbs on car exports to the US when the current programme expires next spring.

A Miti official had been quoted as saying there would have to be an extraordinary reason for further curbs, given the pressure on Japanese exporters brought about by a higher yen. This year Japan is limiting its car exports to the US to 2.3m units, up from 1.85m in 1984-85. However, on the basis of the latest US sales figures, it could sell far more.

Japan's raising of the ceiling earlier this year had come under attack in Washington. Similar comments wafted across the Pacific over the weekend.

Senator Don Riegle from the car producing state of Michigan accused Japan of "a form of trade piracy," and of arrogance, selfishness and irresponsibility.

SHIPPING REPORT

Tanker rates fall after Opec market share decision

BY ANDREW FISHER, SHIPPING CORRESPONDENT

THE TANKER market suffered a check last week after the Organisation of Petroleum Exporting Countries (Opec) stated its determination to keep up its market share at whatever price. Freight rates fell and inquiry slackened considerably.

Uncertainty over oil prices caused charterers to hesitate over fixing new vessels, a development likely to exaggerate the usual seasonal problems over the holiday period when owners are eager to find employment for vessels to carry them through Christmas and the New Year.

Even so, underlying rate levels are still well above those prevailing a few months ago, causing Galbraith's, the UK ship broker, to speak of "expectations of fairly active market conditions for the first few months of next year."

Business in the Gulf was slower than in recent weeks, with rates subdued. One VLCC (very large crude carrier) was fixed to the west at the reduced rate of Worldscale 30. Early in the week, a VLCC was fixed to Japan at Worldscale 45.

E. A. Gibson Shipbrokers said that nearly 20 big tankers would be available in the Gulf until the end of the year. With inquiry decreased, it reckoned owners would probably have to accept lower rate levels.

Both the Mediterranean and Caribbean loading areas showed weaker rates. West Africa, however, showed more activity, especially for ships in the 65,000 to 80,000 ton range.

The dry cargo market remained slack during the week, with rates again tending to ease. The rate for grain from the US Gulf to Europe eased by 25 cents to around $8.25 (£5.70) a ton, though to Japan it was slightly up at $13.

Caricom trade success

A £56.8m fall in British exports to the members of the Caribbean Economic Community (Caricom) in the first nine months of this year has left the group with a £66.8m surplus in trade with the UK, writes Canute James in Kingston. In the corresponding period of last year it recorded a £10.5m deficit.

British Government figures, issued by the High Commission in Barbados, show that British exports to the community countries, except Belize, fell to £269.5m between January and September of this year.

Third World countries toughen stance on Gatt

BY JOHN ELLIOTT IN NEW DELHI

DEVELOPING countries have toughened their stand against services being included in the General Agreement on Tariffs and Trade (Gatt) and have warned that the new round of negotiations called for by the US is "not a fait accompli."

This aggressive stance was adopted on Friday in New Delhi by a conference of 37 developing countries including leading opponents of the inclusion of services such as Brazil and Egypt, and other countries such as Singapore, Pakistan and Sri Lanka.

Only South Korea said during the two-day conference that services might be included but it stressed that it did not regard this as a priority item.

The conference was originally organised to mark the opening of new premises for the Indian Institute of Foreign Trade in New Delhi. But it became an occasion for marshalling the forces of developing countries against the US and other developed nations because it took place soon after Gatt members set up a preparatory committee on a new round.

"Such a round is not a fait accompli. We are only entering the preparatory phase in which developing countries will be making their own proposals," Mr Prem Kumar, India's permanent secretary at the Ministry of Commerce and chairman of the conference, said in a summing up statement.

"A decision regarding the new round of negotiations will depend on the progress that may be made from the point of view of developing countries." Gatt was "not the appropriate forum" for dealing with services.

Speakers from Tanzania, Egypt and India broadened the debate on services by saying that opening developing countries' industries such as banks, communications and transport systems to take-over by multinationals could further widen the economic gap between developing and developed countries.

This would be "to the disadvantage of developing countries and aggravate further the existing symmetry and inequality in the international economic order," said Mr Kumar.

The conference also called on developed countries to "return within the framework of Gatt" on existing subjects, and give special attention to priority areas including tropical and other agricultural products and textiles.

Developing countries would also demand in the preparatory committee that developed countries guaranteed there would be a "standstill" on escalation of tariffs on certain goods.

"There was considerable scepticism about the outcome of the results of negotiations" said Mr Kumar.

Eutelsat asks US to bid for launch order

By Our Paris Staff

EUTELSAT, the European satellite telecommunications organisation, is asking the US and European rocket launchers to compete against each other for placing into orbit two communications satellits in 1989.

Competition for European satellite launching orders between Ariane, the French-led space rocket, and the US space shuttle is highly unusual. Eutelsat, which groups the posts and telecommunications authorities from 26 European countries, has chosen Ariane for the launch of its first five satellites as an integral part of an agreement with the European Space Agency.

Eutelsat officials say prices and other conditions for the 1989 launch offered by the US National Aeronautics and Space Administration (Nasa), and Arianespace, the commercial company selling Ariane launches, are fairly close. "We are trying to get the best deal," said one official. If Nasa offered a more cost effective solution, Eutelsat would be ready to go outside Europe for satellite launching.

Eutelsat is asking only European manufacturers to build the satellites. Costing about $60m (£41m) each, the satellites are planned to carry a large number of TV channels for distribution to cable operators.

Two consortia—British Aerospace linked with Matra and Messerschmitt-Boelkow-Blohm / Aerospatiale / Marconi — have replied to tenders on building the space craft. A decision on the manufacturer is due early next year.

Three or four satellites are to be built and of these one will be a spare. One satellite may be used by British Telecom for leasing for television.

Eutelsat wants to make a decision on the launch vehicle by next summer.

In another example of competition between Nasa and Arianespace for a European client, France is trying to persuade Britain to choose Ariane for launching the UK Ministry of Defence Skynet 4c military communications satellite in 1988.

British officials say converting the spacecraft to be carried by Ariane rather than the space shuttle could cost about £1m.

NOTICE OF REDEMPTION

to the holders of Debentures payable in American Currency of the issue designated

7½% Sinking Fund Debentures due January 15th, 1988

(herein called "Debentures") of the

PROVINCE OF QUEBEC
CANADA

FURTHER TO OUR NOTICE ON THE 13th DECEMBER 1985, WE REPEAT THE FOLLOWING NUMBERS WHICH WERE NOT PRINTED CORRECTLY IN OUR ORIGINAL PUBLICATION

NOTICE IS HEREBY GIVEN that the Province of Quebec intends to and will redeem for SINKING FUND PURPOSES on January 15th, 1986, pursuant to the provisions of the Debentures, the following debentures as indicated, of the above-mentioned issue, at 100% of principal amount plus accrued interest to the redemption date, namely:

15117	15118	15141	15142	15143
15209	15210	15211	15212	15213

Debentures to be redeemed, will become due and payable and will be paid in such coin or currency of the United States of America as at the time of payment is legal tender for public and private debts in said United States of America, at the office of the Principal Paying Agent, Bank of Montreal, London, England, or at any of the offices of the following Paying Agencies: Bank of Montreal Trust Company, New York; Bank of Montreal, Montreal; Kredietbank N.V., Brussels; Westdeutsche Landesbank Girozentrale, Dusseldorf; Commerzbank A.G., Frankfurt; Kredietbank S.A., Luxembourg; Credit Lyonnais, Paris; Credit Suisse Bank, Zurich; Banco di Roma, Rome; S. G. Warburg & Co. Ltd., London, upon presentation and surrender of Debentures bearing the above numbers, with all coupons maturing after January 15th, 1986, attached.

From and after January 15th, 1986, interest on the debentures to be so redeemed will cease and interest on coupons maturing subsequent to that date will be void.

Minister of Finance
PROVINCE OF QUEBEC

December 13th, 1985

THIS NOTICE DOES NOT CONSTITUTE AN OFFER FOR SALE AND THE STOCKS LISTED BELOW ARE NOT AVAILABLE FOR PURCHASE DIRECT FROM THE BANK OF ENGLAND. OFFICIAL DEALINGS IN THE STOCKS ON THE STOCK EXCHANGE ARE EXPECTED TO COMMENCE ON MONDAY, 16th DECEMBER, 1985.

ISSUES OF GOVERNMENT STOCK

The Bank of England announces that Her Majesty's Treasury has created on 13th December 1985, and has issued to the Bank, additional amounts as indicated of each of the Stocks listed below:

£150 million 10 per cent TREASURY STOCK, 1992
£150 million 10½ per cent EXCHEQUER STOCK, 1997
£150 million 9¾ per cent CONVERSION STOCK, 2001
£150 million 9½ per cent CONVERSION STOCK, 2004

The price paid by the Bank on issue was in each case the middle market closing price of the relevant Stock on 13th December 1985 as certified by the Government Broker.

In each case, the amount issued on 13th December 1985 represents a further tranche of the relevant Stock, ranking in all respects pari passu with that Stock and subject to the terms and conditions applicable to that Stock, and subject also to the provision contained in the final paragraph of this notice; the current provisions for Capital Gains Tax are described below.

Copies of the prospectuses for 10 per cent Treasury Stock, 1992 dated 11th November 1977, 10½ per cent Exchequer Stock, 1997 dated 14th October 1977, 10½ per cent Treasury Convertible Stock, 1987 dated 27th May 1983 (which contained the terms of issue of 9¾ per cent Conversion Stock, 2001) and 10 per cent Treasury Convertible Stock, 1990 dated 13th January 1984 (which contained the terms of issue of 9½ per cent Conversion Stock, 2004), may be obtained at the Bank of England, New Issues, Watling Street London EC4M 9AA.

Application has been made to the Council of The Stock Exchange for each further tranche of stock to be admitted to the Official List.

The Stocks are repayable at par, and interest is payable half-yearly, on the dates shown below:

Stock	Redemption date	Interest payment dates
10 per cent Treasury Stock, 1992	21st February 1992	21st February 21st August
10½ per cent Exchequer Stock, 1997	21st February 1997	21st February 21st August
9¾ per cent Conversion Stock, 2001	10th August 2001	10th February 10th August
9½ per cent Conversion Stock, 2004	25th October 2004	25th April 25th October

Each further tranche of stock issued on 13th December 1985 will rank for a full six months' interest on the next interest payment date applicable to the relevant Stock.

Each of the Stocks referred to in this notice is specified under paragraph 1 of Schedule 2 to the Capital Gains Tax Act 1979 as a gilt-edged security (under current legislation exempt from tax on capital gains on disposals made on or after 2nd July 1986, irrespective of the period for which the Stock is held).

Government statement

Attention is drawn to the statement issued by Her Majesty's Treasury on 29th May 1985 which explained that, in the interest of the orderly conduct of fiscal policy, neither Her Majesty's Government nor the Bank of England or their respective servants or agents undertake to disclose tax changes decided on but not yet announced, even where they may specifically affect the terms on which, or the conditions under which, these further tranches of stock are issued or sold by or on behalf of the Government or the Bank; that no responsibility can therefore be accepted for any omission to make such disclosure; and that such omission shall neither render any transaction liable to be set aside nor give rise to any claim for compensation.

BANK OF ENGLAND
LONDON
13th December 1985

UK manufacturers hit by export order books decline

BY ROBIN PAULEY

BRITISH manufacturing industry's order books, especially for exports, have weakened during the past month although not seriously enough to erode confidence about the level of output in the near future, the Confederation of British Industry (CBI) says today.

The latest monthly industrial trends survey from the employers' organisation reports a decline in both total and export order books after signs that orders might be picking up in November.

The survey shows 23 per cent of manufacturing companies reporting total order books below normal and only 16 per cent saying they are above normal.

This is a balance of 7 per cent with lower order levels than normal compared with 5 per cent in November and 13 per cent in October.

The position on export orders is worse with 28 per cent reporting below normal levels and 16 per cent reporting above normal.

This is a balance of 12 per cent with below normal export orders compared with a balance of 5 per cent in November and 16 per cent in October, one of the worst months of this year for orders.

Mr David Wigglesworth, chairman of the CBI economic situation committee, said: "It is rather disappointing to see this decline in orders after what seemed to be an improving trend in November. Some companies seem to have been experiencing more difficulty in selling their products, particularly on the export side.

"It underlines once again how important it is for all of us in British industry to maintain firm control of our costs and particularly our pay settlements if we are to remain competitive in markets at home and overseas."

The results are based on a survey of 1,538 companies before the recent Opec meeting, so it does not reflect any increases in order levels which may have been gained as a result of the fall in sterling which accompanied the fall in oil prices.

Call to raise car demand in Europe with cuts in taxes

BY KENNETH GOODING, MOTOR INDUSTRY CORRESPONDENT

WEST EUROPEAN governments could solve the motor industry's problems of excess production capacity by boosting demand for new cars, a policy which could create between 409,000 and 897,000 new jobs by 1990, according to a report published today.

Such action would cover its cost in many cases through reduced unemployment costs, higher unit sales and increased consumer spending power, says Professor Krish Bhaskar's motor industry research unit (Miru) at the University of East Anglia.

Governments could stimulate demand by reducing car taxes and by imposing stricter car roadworthiness standards.

The report points out that car demand is also strongly stimulated by general economic growth. But governments would only be willing to pursue such a policy if it were in line with other objectives because it creates such a wide range of other economic effects.

The report estimates that even moderate cuts in the taxes on the purchase and use of cars would create an extra annual demand for between 1m and 1.6m new cars by 1990.

That compares with West European demand currently running at about 10m a year and the industry's capacity which is estimated to be 12m.

Price has a strong effect on car demand and reducing car taxes, "which is within the capability of all European governments," would have the greatest short-term effect on demand, the report suggests.

Reducing running costs appears to have a smaller effect, influencing demand largely by increasing the share of the individual's motoring budget which can be spent on car purchase.

Manufacturers might well take advantage of tax cuts to raise their own prices so as to claw back past and present losses but this would strengthen the industry by providing more income for its future investment programmes, it is argued.

Specific examples have been calculated for the UK, France and Europe as a whole and from these case studies the report estimates car tax cuts would cost the British government between Ecu 335m ($288m) and Ecu 639m.

Demand growth: a boost for employment, £95 from Miru, School of Information Systems, University of East Anglia, Norwich NR4 7TJ.

Chloride in US deal for 'super-battery'

BY JOHN GRIFFITHS

CHLORIDE, the financially-pressed batteries group, has signed a second contract with a US body aimed at further developing Chloride's sodium-sulphur "super-battery."

The contract, worth $9m, is with the US Electric Power Research Institute.

Together with an earlier contract with the US Department of Energy, signed in September and worth $8m, its target is the demonstration of a 500 kilowatt-hour battery for off-peak electrical power storage.

The sodium-sulphur battery, known as the Beta, is capable of storing four times as much energy as a lead-acid equivalent. Its intended construction is in the form of small self-contained cells. Some 3,000 would be used to propel a vehicle.

Chloride Silent Power, set up with the UK Electricity Council and which received funding assistance from the Department of Trade and Industry, hopes to bring such batteries into production in the early 1990s.

It is acknowledged, however, that a considerable amount of development is required before it can enter commercial production, although Chloride Silent Power believes it still has a lead over Brown Boveri and Hitachi, which are also pursuing sodium-sulphur battery technology.

Chloride sees the sodium-sulphur battery as a technology offering perhaps its brightest prospect for substantial growth.

EEC equal pay claim wins support

By Raymond Hughes

BRITONS employed at the joint European nuclear fusion research station at Culham in Oxfordshire have won strong backing for their claim that they are the victims of pay discrimination.

The European Court of Justice, in Luxembourg has been advised by one of its advocates general that the Britons are correct in their claim that the system under which they are paid only about half as much as staff from other European countries working alongside them breaches an EEC non-discrimination law.

The court will now consider its ruling on the Britons' damages claim against the European Commission and the Council of Ministers.

Culham is the home of the Joint European Torus (JET) undertaking.

The regulations setting up JET provided that staff coming from "the host organisation" – the UK Atomic Energy Authority – were to be treated as its employees and paid accordingly.

Bond dealers' tax change

By Clive Wolman

DEALERS in Eurobonds and US government Treasury bonds have been exempted from the harsh tax treatment normally applied to sale and repurchase transactions, the Inland Revenue announced at the weekend.

Over the last two years, Eurobond and Treasury bond dealers, which are mostly large foreign investment banks, have developed a means of releasing some of the capital normally tied up in their bond portfolios. A dealer will sell the bonds to a bank which agrees to sell them again at a specified date and price or at the prevailing market value. This provides the dealer with a simple means of raising short-term finance.

Such sale and repurchase agreements known as "repos" – fall foul of an anti-avoidance provision in the 1970 Taxes Act. This is designed to deter a taxpayer from selling a bond to a non-taxpayer shortly before a dividend is due and buying it back afterwards to escape income tax on the dividend.

Mr Ian Stewart, Economic Secretary to the Treasury, said that the anti-avoidance provision would not be applied against sale and repurchase transactions involving Eurobonds or overseas government stocks denominated in foreign currency.

One requirement, however, is that both parties to the transactions must be dealers in securities

NOTICE OF REDEMPTION

To the Holders of

WESTPAC BANKING CORPORATION

12⅞% Subordinated Bonds due 1992

NOTICE IS HEREBY GIVEN that, pursuant to the provisions of the Trust Deed dated January 31, 1985, $5,000,000 principal amount of the above described Bonds has been selected for redemption on January 15, 1986 at a redemption price of 101% of the principal amount thereof, together with accrued interest to said date, as follows:

BONDS OF U.S. $5,000 EACH

56	1242	2468	3808	5092	6445	7764	9026	10103	11548	12537	13760	15361	16836	18375	19606
59	1244	2475	3815	5094	6464	7841	9060	10137	11580	12602	13764	15363	16912	18382	19608
94	1248	2478	3822	5103	6465	7851	9073	10163	11581	12604	13774	15418	16923	18389	19611
99	1259	2481	3848	5148	6514	7854	9103	10173	11584	12610	13857	15480	16932	18398	19616
160	1263	2491	3855	5196	6522	7859	9110	10179	11586	12658	13887	15502	17026	18407	19629
169	1264	2499	3872	5207	6532	7864	9133	10186	11592	12677	13901	15503	17031	18431	19635
173	1301	2505	3908	5268	6562	7876	9134	10188	11603	12700	13913	15518	17044	18465	19638
220	1334	2527	3911	5284	6607	7884	9171	10226	11673	12708	13928	15525	17089	18478	19654
223	1351	2532	3913	5293	6609	7921	9194	10232	11716	12745	13941	15572	17132	18485	19661
242	1355	2541	3947	5300	6655	7957	9195	10244	11732	12747	13974	15613	17133	18497	19673
243	1395	2565	3962	5322	6680	7964	9211	10292	11742	12771	13999	15620	17137	18518	19675
261	1410	2592	3978	5376	6704	7985	9256	10299	11758	12788	14032	15621	17141	18546	19686
284	1415	2608	4057	5417	6707	8018	9270	10309	11760	12800	14049	15654	17201	18602	19692
310	1437	2647	4070	5419	6722	8050	9284	10370	11764	12811	14104	15702	17222	18609	19693
317	1446	2685	4076	5457	6726	8079	9347	10384	11792	12852	14119	15730	17231	18612	19698
342	1457	2702	4132	5476	6761	8088	9350	10393	11803	12871	14131	15745	17289	18669	19711
354	1458	2787	4146	5490	6762	8094	9364	10397	11807	12878	14144	15746	17291	18772	19718
361	1464	2800	4158	5514	6767	8127	9367	10433	11818	12897	14230	15750	17322	18786	19724
373	1479	2806	4171	5574	6775	8130	9380	10453	11822	12917	14250	15817	17337	18796	19728
405	1483	2825	4178	5585	6811	8135	9392	10469	11834	12921	14268	15831	17352	18802	19738
448	1484	2845	4206	5598	6815	8158	9401	10505	11849	12923	14291	15833	17389	18867	19748
517	1504	2849	4250	5599	6839	8159	9419	10514	11858	12970	14318	15866	17418	18869	19756
526	1589	2874	4310	5608	6854	8194	9420	10522	11862	12975	14324	15888	17488	18877	19766
527	1631	2894	4311	5649	6896	8230	9446	10548	11878	13039	14354	15967	17546	18944	19780
529	1645	2943	4320	5650	6907	8253	9452	10613	11881	13048	14359	15981	17557	18966	19795
546	1653	2951	4339	5677	6941	8262	9524	10628	11882	13052	14394	16007	17604	18994	19798
602	1656	2990	4355	5686	6942	8267	9528	10656	11901	13066	14447	16008	17618	19050	19801
603	1696	3002	4361	5708	6981	8281	9551	10665	11921	13103	14451	16009	17620	19078	19807
611	1702	3005	4396	5713	6992	8293	9557	10696	11923	13159	14498	16020	17628	19087	19808
629	1705	3018	4410	5722	7001	8324	9570	10717	11948	13164	14548	16023	17650	19107	19819
642	1740	3021	4416	5730	7003	8325	9615	10726	11976	13211	14574	16033	17656	19131	19828
685	1761	3057	4418	5741	7074	8330	9619	10798	11979	13212	14607	16035	17673	19141	19831
687	1766	3062	4429	5796	7077	8340	9620	10863	11980	13222	14616	16060	17674	19165	19837
730	1774	3072	4459	5824	7143	8379	9634	10884	11981	13227	14637	16124	17692	19174	19850
734	1777	3075	4482	5826	7148	8409	9661	10886	11989	13261	14642	16146	17699	19190	19862
749	1795	3114	4495	5867	7156	8412	9679	10905	12003	13267	14667	16152	17716	19252	19869
778	1821	3133	4506	5915	7159	8456	9686	10924	12059	13324	14673	16179	17770	19254	19877
800	1839	3189	4535	5933	7165	8465	9705	10942	12074	13339	14676	16189	17784	19259	19879
806	1851	3212	4581	5936	7185	8481	9708	10958	12075	13340	14703	16190	17815	19288	19884
811	1859	3224	4619	5953	7219	8501	9727	11062	12091	13372	14769	16221	17817	19333	19894
816	1890	3229	4624	5973	7249	8529	9751	11065	12096	13392	14809	16257	17818	19352	19895
818	1952	3238	4635	5976	7277	8584	9768	11095	12123	13393	14829	16268	17826	19381	19903
836	1955	3252	4654	5992	7309	8598	9771	11138	12139	13401	14861	16270	17883	19429	19914
844	1970	3270	4689	6023	7364	8615	9786	11143	12162	13416	14865	16304	17919	19441	19920
856	1998	3291	4711	6026	7375	8643	9791	11166	12164	13419	14913	16378	17930	19452	19928
878	2001	3297	4721	6059	7390	8648	9823	11173	12201	13442	14951	16388	17970	19464	19937
891	2049	3335	4729	6068	7446	8658	9841	11194	12202	13466	14959	16429	18023	19479	19952
914	2057	3367	4733	6070	7451	8666	9845	11197	12231	13490	14997	16443	18043	19487	19963
925	2098	3378	4784	6076	7457	8694	9850	11233	12233	13491	15019	16464	18050	19504	19964
964	2100	3393	4791	6139	7473	8702	9867	11249	12274	13504	15077	16487	18052	19515	19971
989	2150	3490	4820	6181	7476	8730	9875	11262	12289	13512	15080	16512	18078	19516	19972
1007	2153	3497	4837	6210	7485	8789	9879	11283	12294	13540	15089	16530	18082	19521	19987
1009	2170	3498	4854	6232	7528	8790	9882	11290	12357	13549	15120	16543	18153	19527	19991
1021	2171	3509	4863	6237	7565	8801	9891	11373	12369	13565	15151	16589	18159	19548	19994
1034	2181	3526	4919	6242	7579	8805	9911	11383	12418	13601	15159	16643	18184	19554	19997
1125	2190	3546	4925	6266	7582	8816	9915	11385	12420	13612	15174	16652	18195	19565	
1131	2233	3559	4946	6288	7606	8820	9919	11404	12430	13617	15249	16748	18231	19568	
1136	2235	3567	4960	6308	7639	8823	9974	11409	12450	13656	15271	16748	18244	19570	
1139	2274	3638	5014	6312	7664	8827	9989	11492	12452	13669	15326	16750	18269	19576	
1172	2292	3640	5022	6321	7680	8885	10007	11500	12457	13704	15327	16768	18289	19578	
1192	2309	3680	5026	6327	7695	8888	10025	11531	12467	13707	15332	16779	18317	19584	
1209	2423	3797	5062	6350	7739	8988	10066	11534	12477	13710	15333	16787	18354	19588	
1230	2436	3802	5079	6410	7743	9019	10090	11536	12511	13717	15357	16790	18356	19596	

On January 15, 1986, the Bonds designated above will become due and payable as aforesaid in such coin or currency of the United States of America as at the time of payment shall be legal tender for public and private debts. The said Bonds will be paid, upon presentation and surrender thereof with all coupons appertaining thereto, at the option of the holders subject to applicable laws and regulations, at the main offices of Morgan Guaranty Trust Company of New York in Brussels, Frankfurt (Main) or London, or Kredietbank S.A. Luxembourgeoise in Luxembourg, or Swiss Bank Corporation in Basle. Payments at the offices referred to above will be made by a check drawn on, or by a transfer to, a United States dollar account maintained by the payee with a bank in New York City. Any payment made by transfer to an account maintained by the payee with a bank in the United States may be subject to reporting to the United States Internal Revenue Service (IRS) and to backup withholding of 20% of the gross proceeds if payees who are not recognized as exempt recipients fail to provide the paying agent with an executed IRS Form W-8, certifying under penalties of perjury that the payee is not a United States person or an executed IRS Form W-9, certifying under penalties of perjury the payee's taxpayer identification number (employer identification number or social security number, as appropriate). Those holders who are required to provide their correct taxpayer identification number on IRS Form W-9 and who fail to do so may also be subject to a penalty of $50. Please therefore provide the appropriate certification when presenting your securities for payment.

On and after January 15, 1986 interest shall cease to accrue on the Bonds herein designated for redemption.

WESTPAC BANKING CORPORATION

Dated: December 16, 1985

UK NEWS

Brittan claims new law will deter 'fraudsters'

BY JOHN MOORE, CITY CORRESPONDENT

NEW LEGISLATION to be unveiled this week designed to reform the method of regulation of London's financial community will help in the fight against fraud and deception, the UK Government said yesterday.

In a policy speech yesterday in Yorkshire Mr Leon Brittan, Secretary of State for Trade and Industry, said that the new legislation to be contained in the Financial Services Bill should make "the UK an even more unwelcome place for the fraudster." But he warned that the bill "cannot of course guarantee that all fraud will be eliminated."

Against a background of attempts by a number of Members of Parliament to include the Lloyd's of London insurance market within the more formal regulatory structure proposed for the City, Mr Brittan said the Government was keeping a "close watch" on events at Lloyd's. "If it became necessary to take action – and to legislate – I would not hesitate to do so."

He stressed that Lloyd's has its own regulatory system and its own Act of Parliament, the Lloyd's Act of 1982. "The events at Lloyd's which have given rise to such notoriety in recent months originated before the act was passed. It is a little early to pass judgment on the effectiveness of the new regulatory regime at Lloyd's."

In the last two weeks, Lloyd's has come under a barrage of criticism from Mr Brian Sedgemore, a Labour MP who has alleged that there has been widespread malpractice in the Lloyd's community and urged for it to be brought within the new legislation.

Mr Brittan said yesterday that he would need to be convinced that the Financial Services Bill would be the appropriate vehicle "even if it became clear that further legislation for Lloyd's was required."

Mr Brittan said that under the terms of the new legislation those who carry out investment business will have to be authorised by the Secretary of State to do so "or face criminal prosecution if they are not." The power of authorisation, along with related powers of regulation will be delegated by him "to one or two boards made up of practitioners and users of financial services, provided that I am satisfied that their rules meet the specified criteria contained within the bill."

The board or boards will be able to recognise other self-regulating organisations, such as the stock exchange, on condition that their rules set equivalent standards of behaviour.

The system will be set up by statute and will operate within a statutory framework. "It is wholly fanciful to suggest that regulation will be less effective just because it is enforced by those close to the market," he said.

Defending the new regulatory system, Mr Brittan said that "it is not that we wish to adopt a kid-glove approach to the City or that we are reluctant to take the most vigorous action that may be needed to stamp out malpractice." He believed the approach adopted would result in a better combination of effective regulation and successful firms and markets than an attempt to produce a US-style regulation with a British version of the Securities and Exchange Commission.

He said the sanctions available for use against investment businesses under the new legislation extend from a simple reprimand through suspension "right up to the removal of authorisation, which will then make it a criminal offence for the person or business to engage in investment business thereafter."

A range of civil remedies will be available to the boards. They will have the power to apply to the courts for a "disgorgement" order to force an investment business to recompense investors for any loss they have suffered as a result of its breaking the rules, as well as seek an injunction restraining the business from continuing its activities in breach of the rules.

"Because it is a criminal offence, dealing with fraud will always depend on painstaking investigation, with adequate powers for the investigators and adequate powers to back them up," said Mr Brittan. He said that if a forthcoming report prepared by Lord Roskill on procedures in the prosecution of fraud cases "recommends significant changes in court procedure or the law we will consider them urgently. But the Financial Services Bill will itself also have an important role. For by improving both the vetting and control of all those in investment business, it will undoubtedly make it more difficult for fraud to be committed."

He added that the range of civil remedies to be introduced would make it possible "to nip many malpractices in the bud, rather than rely on prosecuting those involved after the event." The provisions in the bill should make fraud less likely to occur in the first place, he said.

City lobby, Page 7

Kinnock softens line on renationalisation as Labour priority

BY JOHN HUNT

MR NEIL KINNOCK, the Labour Party leader, made it clear yesterday that renationalisation of privatised companies would not be the priority of a future Labour Government.

It would only be able to take these companies back into public ownership "ultimately" after first introducing policies to improve the economy and reduce unemployment.

His words, in an interview on the BBC TV programme This Week, Next Week, will anger the Labour left but please the moderates in the party. It is a considerable watering down of the renationalisation policy.

In another passage that will not please the left he indicated that he favours state aid for union ballots and a future Labour Government would retain the system with some modifications.

Mr Kinnock said that a Labour Government would not give priority to a "massive repurchase" of privatised companies, but "ultimately" Labour would secure public control and common ownership.

He said he did not want to put a time scale on renationalisation. The overriding priority had to be employment, investment and the development of the economy.

"In our scale of priorities we are not going to be using huge amounts of resources for repurchasing these industries," he said.

At the same time, he emphasised that if they were taken back into public ownership, the shareholders would receive compensation for only the price they originaly paid for their investment.

His remarks on state aid for union ballots come at a time when the TUC is at odds over this issue and is considering whether to suspend the EEPTU, the electricians union, and the Union of Engineering Workers for their willingness to accept state aid for this purpose.

He said that in principle there was much to be said for using government funds for ballots so long as it was in accordance with democratic principles.

The present Labour movement policy of opposing such funds had been predicated on Labour winning the 1983 general election.

Now that the funds had been in operation for some time the movement had to "renovate" its ideas on the subject, Mr Kinnock said.

Guinness Peat acts over Maxwell stake

BY DAVID LASCELLES, BANKING CORRESPONDENT

GUINNESS PEAT, the UK financial services group, last night took steps to ward off a possible threat to its £200m ($287m) takeover bid for Britannia Arrow by Mr Robert Maxwell, publisher of Mirror Group newspapers.

Guinness Peat said its merchant bankers, Morgan Grenfell, had lined up institutional investors willing to buy the 1.75m shares of the group Mr Maxwell bought at the end of last week.

Mr Alastair Morton, chief executive, said Mr Maxwell would this morning be offered 75p for his shares, the price at which Guinness Peat stock closed on Friday.

Guinness Peat's fear is that Mr Maxwell, who has publicly allied himself with Britannia, intends to sell his shares and drive down the value of the bid, which is to be largely financed by an issue of stock. The stake represents less than 1 per cent of Guinness Peat's stock, but a sudden sale might affect the price at a key moment.

Mr Maxwell acquired the shares from Lord Kissin, the largest shareholder of Guinness Peat, who has had several rows with Mr Morton. According to Mr Morton, Lord Kissin told the company he needed to sell the shares to meet a financial commitment next month. Guinness Peat offered to find a buyer today, but Lord Kissin sold to Mr Maxwell.

Guinness Peat's offer is to close tomorrow, and the company is expected to announce a small improvement in its terms to win over more shareholders, fewer than 1 per cent of whom have accepted.

Mr Maxwell recently acquired a 5 per cent stake in Britannia Arrow, and has been hinting at the possible existence of rival bidders.

Cabinet plans reform of local taxes

BY PETER RIDDELL, POLITICAL EDITOR

A MIXED system of local taxes for England and Wales will be proposed in the Government's Green Paper (consultation document) on local government finance, to be published in just over a month.

A different approach and timetable for implementation are now certain to be adopted in Scotland.

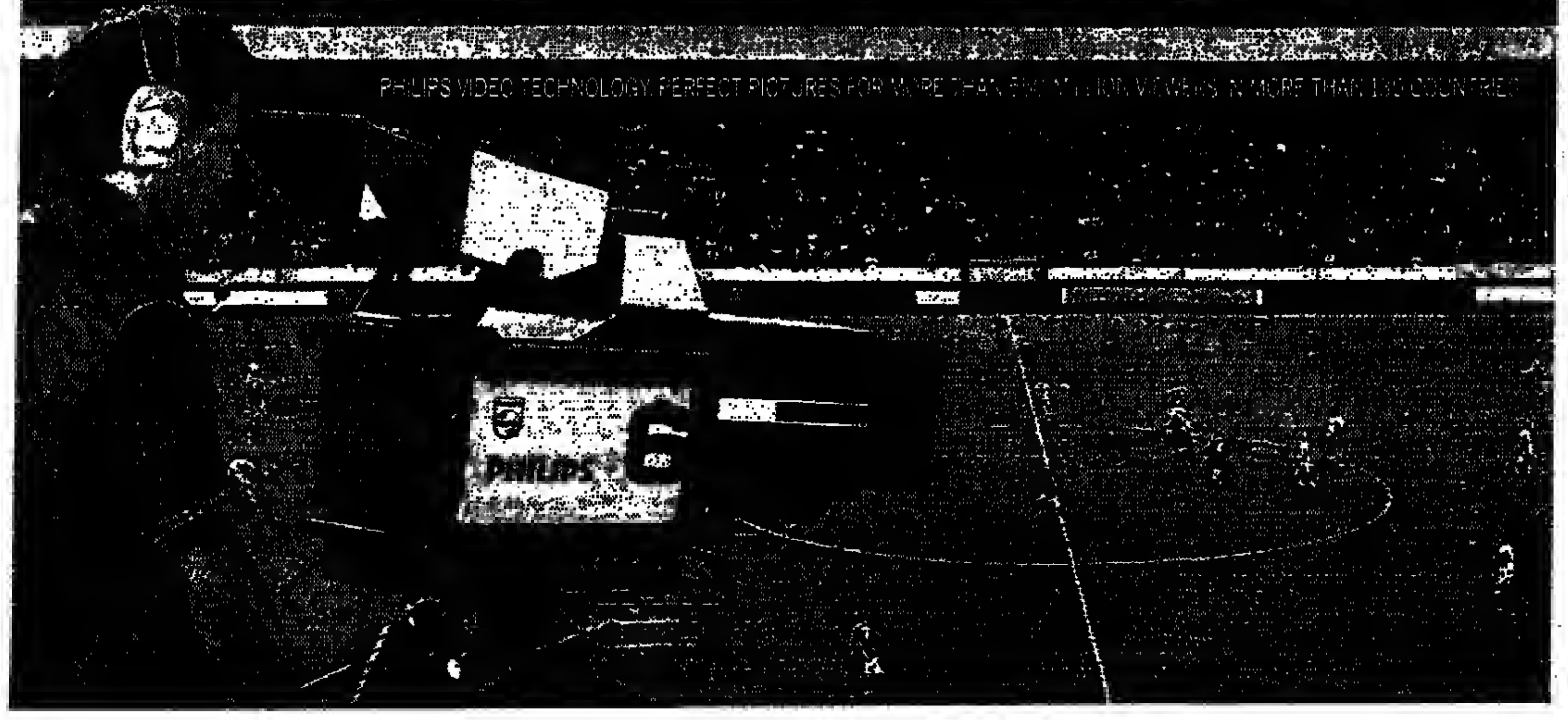
Mrs Margaret Thatcher, the Prime Minister, is this week to chair a meeting of a special Cabinet committee on the subject.

The hope in Whitehall is that the detailed work can be completed during the Christmas recess, ahead of ratification by the Cabinet in the first half of January and publication towards the end of the month. But there has been disagreement among ministers over what should be done and there is still no unanimity on the proposals.

The cornerstone of the likely approach will be a per-head tax to be paid by all adults, with even those getting social security benefits paying at least 20 per cent of the tax. The term "poll tax" has been regarded as unacceptable because of its associations with registering for voting. Initially, therefore, the term residence charge was used, but the current vogue is for community charge.

In Scotland, the community charge will entirely replace domestic rates (local taxes on property).

In England and Wales, a mixed system involving a combination of the new community charge and a modified form of domestic rates is likely to be proposed.



UK NEWS

City lobby fails to shake common law agency rules

Clive Wolman explains how the new Financial Services Bill will tighten up the investors' safety net

THE EMERGING *giants of the new* City of London, the conglomerates led by the large clearing or merchant banks, have in recent months been lobbying the Government to ask for a special exemption from the common law principles of agency which serve to protect investors.

But the Financial Services Bill, due to be published on Thursday, will grant them few, if any, concessions.

The conglomerates claim that the *common law rules* will prevent them from operating effectively in fast-moving securities markets.

However, officials in the Department of Trade and Industry (DTI) have resisted what they see as an attempt to remove the safety net for investors provided by long-established legal principles.

The robust approach of Whitehall *may upset not only the City's con*glomerates, but also the brokers and salesmen of life assurance and unit trusts.

In the absence of a legal challenge, their practices have strayed far from the basic principles of the *law* of agency.

Romantics like to characterise the common law as the accumulated wisdom of 10 centuries of English history. But Whitehall officials share their attachment, believing that the common law's basic principles remain valid, even after all the reports and government documents on investor protection of the last three years.

The Financial Services Bill, they say, will merely provide a framework in which those principles can be fleshed out and made easier to enforce in a rapidly changing financial environment.

The detailed rules to be drawn up by the proposed self-regulatory organisations will not oust the common law, but give investors additional rights alongside it, they say.

Since the early years of the century, the London Stock Exchange has insisted that its members divide themselves into stockbrokers, who act as agents for investors by advising them on which securities they should buy or sell and finding for them the best bargain, and stockjobbers who buy and sell shares on their own account.

From next October, however, companies will be allowed to carry out both functions. The danger for the investor is that he may be misled into thinking that his stockbroker or bank will always continue to act as his agent for his best interests, whereas in fact the institution may be buying or selling shares from its own book at the best price it can get.

To ensure that the investor is protected, the Financial Services Bill will enshrine several principles of the law of agency.

It will require an investment business to disclose any material interest it has in a proposed transaction, whether it will be acting as an agent for the client and, if so, what fees it will charge – and any remuneration it may receive from other parties, for example commission from an insurance company.

In addition, all instructions from a client must be executed to his best advantage.

Several large conglomerates comprising a stockbroker, a stockjobber and a bank are to be set up over the *next few months.*

In recent months, they have been arguing that the common law principles will make it difficult for them to operate services such as giving advice to an investor on individual stocks and then executing an order by dealing with him off their own books.

The common law requirement of *disclosure in such circumstances* might oblige them to reveal, for example, whether their book was long or short of ICI shares.

They say this would make it impossible for them to make a market effectively.

In addition, both the conglomerates and insurance brokers have complained that it is artificial to force them into *common law strait*jacket of being either the investor's agent or a market-maker/principal who is buying and selling for himself or his company.

For example, a customer goes into a branch of Barclays Bank and fills in a form to sell 100 BT shares. The clerk says the customer can sell the shares directly to Barclays' own market-making subsidiary at a price of 195p.

But the customer then asks: "Will *I get a better price if I wait until to*morrow?" If the clerk replies that the market is looking shaky, the legal status of Barclays Bank is changed from principal to agent.

The conglomerates also complain that the common law takes no account of the "Chinese walls" they have set up which are designed to stop any flow of information from one department of a conglomerate to the other.

Thus the bank clerk, or the bank's *broking desk, may have no* idea of the state of the market-maker's book. But the common law imputes the knowledge of one department to all departments.

To remove the uncertainty, the conglomerates have proposed that the general law of agency, misrepresentation and unfair exemption clauses be replaced by new, comprehensive business rules to be made under the Financial Services Act.

These detailed rules would take into account the particular circumstances of the markets in which they operate. Compliance with the business rules would be a complete defence against any legal action.

The DTI, however, has rejected *this approach. It says that the draft*ers of the business rules cannot be expected to foresee all future developments in financial markets and all possible areas of dispute and share practice.

Where there are lacunae in the rules, the investor must be able to rely on the general law, they say. Otherwise what is supposed to be an investor protection bill would only worsen his position. The attraction of the common law rules is that they are both general and flexible.

Nevertheless, a conglomerate can avoid the threat of legal action by the use of client agreement letters. Such letters might require their clients to exempt them from some of the more rigorous requirements of agency law, for example when quick decisions were necessary.

The common law permits exemp*tion clauses to be included* in contracts, provided that they are not all-embracing, their meaning is clear and both parties have understood and freely consented to them.

The exemption clauses will be more securely based if they referred directly to the detailed business rules which will be drawn up by the government-appointed Securities and Investments Board or its successor and authorised self-regulatory organisations.

Inspections will be carried out to ensure that the rules are being complied with, for example, that a conglomerate has genuine "Chinese *Walls." Compliance with the rules* will be a defence, although not an absolute one, against any legal claim.

The DTI's insistence on following the law of agency is, however, difficult to reconcile with one provision in January's White Paper (policy document) concerning insurance brokers, who offer their services as agents of the seeker of insurance.

They will be permitted not only to receive commission from a third party, the insurance company, but will also not have to disclose the amount of commission they receive, provided it conforms to an industry-wide scale.

This provision has been incorporated in the proposed rules of the Marketing of Investments Board Organising Committee published on Thursday.

The British Insurance Brokers' Association believes that the common law has made an exception from the general rules of agency for *insurance broking.*

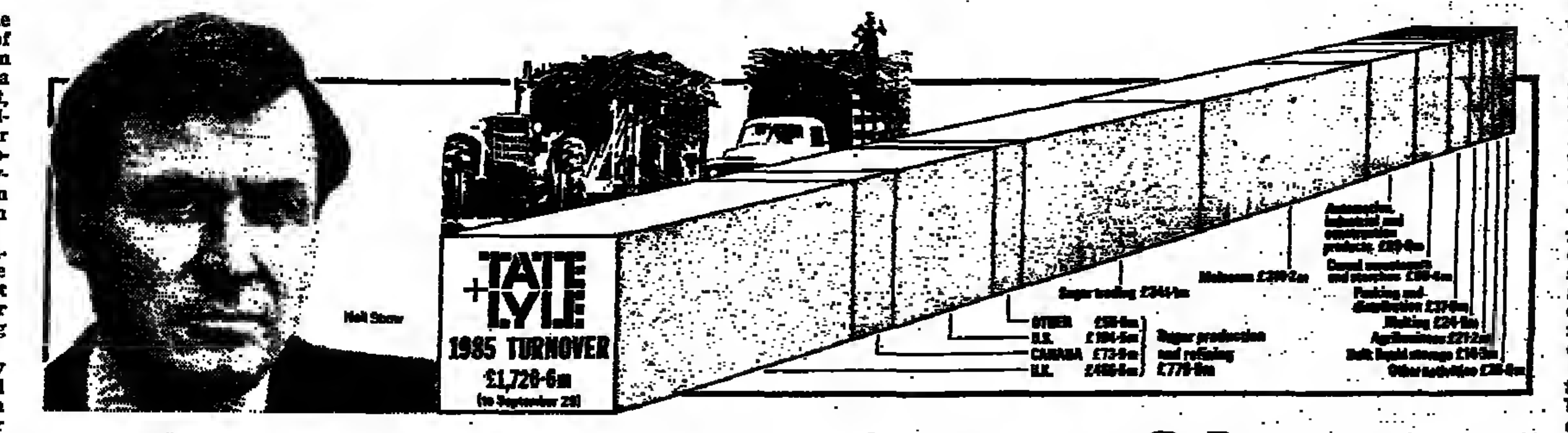
A leading case dating from the 1870s suggests that a broker need not disclose his commission, if he follows a standard scale of which the insured should be aware.

However, the case concerned shipping re-insurance where the aggrieved party was a large insurance company.

It is doubtful whether any court today would accept that the same principle applies when a door-to-door salesman sells a policy to a housewife who could not be expected to know the terms of an industry scale.

THE MANAGEMENT PAGE

EDITED BY CHRISTOPHER LORENZ



Tate & Lyle regains confidence

Despite problems in the industry the group retains a strong commitment to sugar. Andrew Gowers reports

SUGAR probably does not come high on anybody's list of glamorous businesses to be in these days. It suffers from a surplus-ridden world market, where prices reached an all-time low in real terms earlier this year, declining consumption in the West, and heavy-handed political intervention almost everywhere it is grown or sold.

Yet none of this seems unduly to worry Neil Shaw, the genial Canadian chairman-elect of the London-based sugar refining and manufacturing group Tate & Lyle.

Sugar remains the mainstay of his company's business—and cane sugar refining to boot, a sector which the powerful sugar beet interests of Europe have long sought to portray as a dying business.

But last week, Tate reported an increase in pre-tax profits to £76.7m in its latest financial year from £65.4m in 1984, underlining its claim to have emerged from the troubles of the 1970s in reasonable shape. And although refining margins in the US and UK remain dismal, it is slowly but surely expanding its sugar interests worldwide while taking cautious stabs at diversification.

The current mood of confidence at Tate is a fairly recent affair. It was severely battered in the 1970s — particularly as a result of Britain's accession to the EEC which changed the face of the UK sugar market — and its initial adjustment to the challenge was widely seen as half-hearted.

Last year, the fragile renewal of morale under Shaw—initially chief executive and now about to take over the chairmanship as well from Sir Robert Haslam —received another severe knock when the company's bid for Brooke Bond was resoundingly trumped by Unilever.

Shaw was called in from Tate's North American subsidiary, Redpath, in 1980 as a direct response to the faltering efforts at rationalisation in the previous few years. He found an organisation where management responsibilities were not clearly defined, where spending was not properly analysed ond controlled, where ambition was not a watchword, and where family interests frequently triumphed over merit.

"I wanted to squeeze the organisation pretty flat," says the chairman-elect. "It was a question of delegating, making the organisation clear-cut and simple, making sure that people understood their jobs.

"Under the old system, there was always somebody who was responsible, but not *that* responsible. The number of requests for capital expenditure was huge. Now, the overall level of applications is much smaller and the numbers which get turned down are tiny. The projects are in general really well conceived."

Shaw believes it was a problem of mentality as much as organisation, and he places great faith in the idea of stock options for employees and managers as a motivating force. "We had to get people thinking as owners of the business, not just as managers," he says.

Apart from shaking up and stimulating the head office management, the main thrust of Shaw's campaign took place in the UK sugar refining business. This had already shrunk considerably in the late 1970s, as Tate lost market share to British Sugar, its beet-producing arch rival.

Three plants were closed in the years following Tate's acquisition of fellow cane-refiner Manbre & Garton in 1976. The final closure of Tate's large port refinery at Liverpool, with the loss of a further 1,500 jobs, occurred when Shaw was at the helm in 1981.

Shaw now believes that Tate & Lyle has put these troubles firmly behind it. "Large-scale redundancies are *not* the issue any more. They *were* the issue when we joined the EEC.

"We turned the corner two years ago. All our own businesses were in good shape, and the opportunity was there to buy and build on those businesses."

That opportunity manifested itself in the form of Brooke Bond, the UK tea and food company. At the time, Tate & Lyle was full of arguments about the synergy between Brooke Bond's commodity business and its own—feelings which are echoed to this day by Shaw. But the resources available to Tate—a company not much larger than Brooke Bond—in the takeover battle were in the end no match for Unilever's voluminous cheque-book.

Although Shaw himself does not share this view, some City analysts now see Tate's defeat as a blessing in disguise, particularly in the light of the collapse in London tea auction prices over the last year.

"The market didn't expect them to go for such a big scale," says Julian Lakin, food analyst with stockbrokers Scrimgeour, Kemp, Gee. "And the market's been proved right. It would have been a disaster: we'd have had a combination of dying tea prices, dying sugar prices and refining flat on its back all at the same time."

But while there is no doubt that the Brooke Bond debacle was a bitter disappointment to Shaw, the company has lost no time in picking itself up and quietly changing tack.

Over the past two years, Tate has spent well over £100m on a series of small acquisitions.

So what exactly is Tate's strategy in the wake of its setback at the hands of Unilever? Shaw outlines several prongs:

● In the US, which accounts for a growing proportion of the company's activities, Tate & Lyle has been actively on the lookout for more sugar refining capacity to supplement its existing refinery in the north-east of the country.

In January, it announced the purchase of Colonial Sugars of Alabama for $18m, and it followed this in March with a deal to acquire six Mid-Western sugar beet factories formerly owned by Great Western Sugar for $21.5m. The Colonial deal has been held up by a customs investigation into alleged abuses of US laws on importing ond re-exporting sugar, but once it goes *through*, it will bring Tate's share of the American sugar market to about 18 per cent.

Tha company's aim here is simple; it believes that the steady decline in US sugar consumption of recent years is now bottoming out, and it is therefore obtaining valuable capacity at knock-down prices.

Nor is its expansion into the US market likely to stop there. Tate is widely believed to be eyeing up the largest sugar refinery in the country, in San Francisco. This is currently owned by five Hawaiian raw sugar producers, and the British company is thought to see a significant opportunity to buy into it and rationalise it over the next couple of years.

● A desire for rationalisation is likewise behind Tate's attempts to gain control of a significant portion of the Portuguese sugar refining industry —which is of particular interest as the country prepares for its accession to the EEC next month.

It already controls one refinery and is close to taking over a *second*, which would give it about 50 per cent of total Portuguese capacity.

● Sugar trading is one sector of the Tate group which City analysts view nervously as a reminder of the company's dependence on volatile commodity markets. Eyebrows were raised earlier this year when the company announced it was having to write down £6.2m as a result of a 75,000-tonne "strategic" long position it had taken out in sugar around the end of 1984 —before the market bottomed.

But if that was a mistake, Shaw is clearly anxious not to repeat it. "We'll continue to trade sugar between countries. But we'll be very, very cautious about any long-term sizeable contracts."

● Apart from sugar itself, Tate is also setting some store in the longer term by its development of a new low-calorie sweetener named sucralose. This, however, will not be on the market for at least another three years.

● As to diversification, Tate & Lyle is proceeding in an extremely circumspect manner. The first line of attack has so far been to move into businesses closely related with the core sugar sector, such as molasses and other animal feeds. To this end, it acquired the agribusiness division of Beatrice Foods of the US a year ago for $43m.

The company is also looking to boost its liquid bulk storage business, in which it offers empty storage tanks to third parties such as petroleum refining companies.

To the majority of observers, though, the most exciting channel of diversification has been Tate's increased presence in the seemingly unlikely area of plastics through Redpath in North America. In January, it added to its existing construction materials business in Canada by acquiring Dominion Manufacturing Industries, which makes plastic mouldings for the motor industry.

This has already made a substantial contribution to group profits in the last year, and Shaw is now talking of expanding such business into Europe —"perhaps in a small way to start with."

The net result of all this is that sugar business—including molasses—now accounts for only about half of Tate & Lyle's North American assets and 65 per cent of that in the U.K.

In last week's figures, profits from sugar refining and production dropped sharply, giving them a share of only 40 per cent of total group operating profits. "Gradually our other businesses will outstrip sugar," says Shaw.

For the moment, however, speculation continues to focus on possible further acquisitions by Tate. Some City analysts suggest that the company may be feeling rather defensive at present, in view of the torrent of merger activity occurring in the UK food sector. After all, the Brooke Bond bid itself was to some extent an attempt at a defensive merger. Its failure has done nothing to take off the pressure.

"As a cleaned-up, cash-generating business with a low rating, they're a natural target," says Lakin.

But, rumours that a large further acquisition by Tate is in the offing have been rife for months. If they are true, it is clear that the company is being ultra-careful in sizing up its prey this time.

IN THE UK, which accounts for around half of its net assets, Tate & Lyle has been faced with a battle for survival in recent years.

First, there is fierce competition from British Sugar (BSC), *now owned by the commodity trading group S. & W. Berisford*. This has been aggravated by EEC rules which ensure that Tate's refining margins are narrower than those of BSC.

Secondly, there is a clear ceiling on the cane supplies it can import under EEC treaty from African, Caribbean and Pacific countries, which are protected by political commitments from the British Government.

Finally, UK sugar consumption is stagnant, and there is an effective block on its expansion in the sugar market through acquisition. It is an open secret that Tate would be delighted to take British Sugar off Berisford's hands, but it knows full well that the Monopolies and Mergers Commission would never allow it.

The company's answer in the UK has been to try and pare costs to the bone. "Beet sugar has a heavy built-in financial advantage over cane," says Shaw. "To stay in that league we have to be very, very good. We have to have low costs."

To this end, Tate & Lyle has been spending heavily on modernising its plant, particularly at the larger of its two remaining UK refineries, that on the Thames at Silvertown with a capacity of about 1m tonnes a year. Since 1981, spending there on items such as new decolourisation and affination equipment and water treatment plant, has totalled nearly £30m. Peter Nash, general manager of the Silvertown refinery, reckons a further £25m will be spent over the next three years.

As Shaw says, "That's a lot of money in a mature industry under very strong competitive pressure."

The long-term future of the second factory, the Westburn refinery at Greenock in Scotland, might be somewhat less secure. Shaw insists that he has "every intention" of keeping it going and increasing its efficiency. But during a fierce controversy with British Sugar over its EEC beet production quota earlier this year, Tate warned that Greenock could be threatened if British Sugar were to be allowed to produce more.

Business courses

Untap your true potential. Surrey. January 13-15. Fee: £795 plus VAT. Details from Training Research International, 5 St Georges Place, Brighton, Sussex BN1 4GA. Tel: 0273 608485.

Intellectual property. London. January 21-22. Fee: £437. Details from Lion International, Premier House, Southampton Row, London WC1B 5AL. Tel: 01-833 2705. Telex: 24667 (IMPEMP G) Attn: Lion International. Fax: 01-330 6458.

The pay and grading of R & D staff: issues of job evaluation and differentials. Uxbridge. January 10. Fee: £145. Details from the Secretary, Management Programme, Brunel University, Uxbridge, Middlesex UB8 3PH. Tel: 0895 56461 ext 215.

The salesperson's guide to marketing. London. February 27. Fee: members of IM £105 plus VAT: non-members £120 plus VAT. Details from IM Marketing training, Moor Hall, Cookham, Maidenhead, Berks SL6 9QH. Tel: 06285 24922 Ext 29.

Marketing—The new corporate priority. January 22-24. Fee: Non-members: BFr 65,000; Members (AMA/I BFr 59,000. Details from Management Centre Europe, rue Caroly 15, B-1040 Brussels. Tel: 32/2/516. 19.11. Telex: 21.917.

Food shopping in the 1990s. London. January 22. Fee: members £5; non-members £10. Details from The Marketing Society, Derwent House, 35 South Park Road, London SW19 8RR.

Principles of professional selling. Brussels. January 27-31. Fee: Non-members BFr 74,000; Members (AMA/I) BFr 67,000. Details from Management Centre Europe, rue Caroly 15, B-1040 Brussels. Tel: 32/2/516. 19.11. Telex: 21.917.

Selling to specifiers. London. February 20. Fee: I.M. members £105 plus VAT: non-members £120 plus VAT. Details from IM Marketing Training, Moor Hall, Cookham, Maidenhead, Berks SL6 9QH. Tel: 06285 24922. Ext 29.

Christmas toys

Hasbro Industries (UK) has asked us to point out that its toy range, The Transformers, tops the UK best selling list and not Mattel's Masters of the Universe as stated on this page on Thursday. Also, the My Little Pony series is a Hasbro, not a Kenner Parker, product. We regret the errors.

BASE LENDING RATES

Bank	Rate	Bank	Rate
ABN Bank	11½%	■ Guinness Mahon	11½%
Allied Dunbar & Co.	11½%	■ Hambros Bank	11½%
Allied Irish Bank	11½%	Heritable & Gen. Trust	11½%
American Express Bk.	11½%	■ Hill Samuel	§11½%
Amro Bank	11½%	C. Hoare & Co.	11½%
Henry Ansbacher	11½%	Hongkong & Shanghai	11½%
Associates Cap. Corp.	12 %	Johnson Matthey Bkrs.	11½%
Banco de Bilbao	11½%	Knowsley & Co. Ltd.	12 %
Bank Hapoalim	11½%	Lloyds Bank	11½%
Bank Leumi (UK)	11½%	Edward Manson & Co.	12½%
BCCI	11½%	Meghraj & Sons Ltd.	11½%
Bank of Ireland	11½%	Midland Bank	11½%
Bank of Cyprus	11½%	■ Morgan Grenfell	11½%
Bank of India	11½%	Mount Credit Corp. Ltd.	11½%
Bank of Scotland	11½%	National Bk. of Kuwait	11½%
Banque Belge Ltd.	11½%	National Giro Bank	11½%
Barclays Bank	11½%	National Westminster	11½%
Beneficial Trust Ltd.	12½%	Northern Bank Ltd.	11½%
Brit. Bank of Mid. East	11½%	Norwich Gen. Trust	11½%
■ Brown Shipley	11½%	People's Trust	12½%
CL Bank Nederland	11½%	PK Finans. Intl. (UK)	12 %
Canada Permanent	11½%	Provincial Trust Ltd.	12½%
Cayzer Ltd.	11½%	R. Raphael & Sons	11½%
Cedar Holdings	12 %	Roxburghe Guarantee	12 %
■ Charterhouse Japhet	11½%	Royal Bank of Scotland	11½%
Citibank NA	11½%	Royal Trust Co. Canada	11½%
Citibank Savings	¶12½%	Standard Chartered	‖11½%
City Merchants Bank	11½%	TCB	11½%
Clydesdale Bank	11½%	Trustee Savings Bank	11½%
C. E. Coates & Co. Ltd.	12 %	United Bank of Kuwait	11½%
Comm. Bk. N. East	11½%	United Mizrahi Bank	11½%
Consolidated Credits	11½%	Westpac Banking Corp.	11½%
Continental Trust Ltd.	11½%	Whiteaway Laidlaw	12 %
Co-operative Bank	*11½%	Yorkshire Bank	11½%
The Cyprus Popular Bk.	11½%		
Duncan Lawrie	11½%		
E. T. Trust	12 %		
Exeter Trust Ltd.	12 %		
Financial & Gen. Sec.	11½%		
First Nat. Fin. Corp.	12½%		
First Nat. Sec. Ltd.	12½%		
■ Robert Fleming & Co.	11½%		
Robert Fraser & Ptrs.	12½%		
Grindlays Bank	‡11½%		

■ Members of the Accepting Houses Committee.
* 7-day deposits 8.00%, 1-month 8.50%. Top Tier—£2,500+ at 3 months notice 11.25%. At call when £10,000+ remains deposited.
‡ Call deposits £1,000 and over 8.00% gross.
‖ 21-day deposits over £1,000 9.25%.
¶ Mortgage base rate.
§ Demand dep. 8%. Mortgage 13%.

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THE ARTS

The Nutcracker/Covent Garden

Clement Crisp

Though I would rate children and snow among the larger disadvantages of this time of year, I acknowledge that Peter Wright's staging of *The Nutcracker*, returned to the Royal Ballet repertory on Saturday night, makes a very good case for retaining these annoyances. He is also a fine advocate for the ballet itself—a distinction he shares with Balanchine and Grigorovich in their very different versions—in a production which honours the score, whose marvels of melody and orchestration were superbly stated by the orchestra under Gennady Rozhdestvensky.

In its second season, the staging has been enhanced with some amendments to decoration and stage-business: a new snow-scene backdrop; adjustments in the Confiturembourg setting, and most significant, the casting of children from the Royal Ballet School as Clara and Fritz.

Every praise for young Sarah Wildor who plays Clara with an understated gentleness, a certain solemnity as well as a lovely innocence. She looks and behaves as a little girl should when faced with the excitements of the tale.

Christopher Wheeldon is a delightful, alert Fritz, and all the young participants from the school are ideal as mice, soldiers, and various miniature figures, working with exemplary professionalism in Wright's brilliant realisation of the battle, with its eye-widening transformations as the Christmas tree grows.

The other novelty of the evening, for me, was the appearance of Jonathan Burrows as an irresistible Nutcracker. He gives the character a sincerity and charm that suggest he is as enchanted by events as his young companion. His dancing is clean, his mime exemplary: the music's continuity, alas, does not permit the round of applause he deserves for his vivid narration of how he and Clara came to Confiturembourg.

For the rest, casting and interpretations are unchanged from last year, not least in the predictabilities of doddering and bonhomie from certain members of the company, who give the same clichéd performance no matter what the ballet.

John Auld provides an admirable guiding presence as Drosselmeyer, a reading Hoffmannesque in its mingling of amiability with deeper strains of sadness and alchemic skill.

The Sugar Plum Fairy and her Prince were Lesley Collier and Anthony Dowell. I wish I could salute their performance of the great pas de deux as worthy of Ivanov and Chaikovsky, but I found it tight in style, graceless. Slightly broader tempi might help them let air into dancing which looked hurried and wanting in classic generosity and that breath and ease of phrasing so clear in the score.

Mr Rozhdestvensky was a devoted exponent of the music's beauties: I had never before appreciated the muted horn calls which follow Drosselmeyer's appearance as presage to the dreams and mystery so vitally part of the action.

How wise Benois was in discerning qualities "solemn and pathetic, or melancholy and restless" in the composition. It is to Peter Wright's credit that this splendid staging does such honour to Chaikovsky's genius.

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On the previous evening at the Opera House Fiona Chadwick made her debut as Giselle. Miss Chadwick's generation of young principals has no model of outstanding performance on which to build or from which to learn in this ballet.

Their interpretations — as with the gifted Maria Almeida earlier this season, and with Leanne Benjamin in the Sadler's Wells troupe—are self-generated, and tend to carefulness. They lack *fantasy, soul*. Miss Chadwick is a Giselle of real abilities. Her mad-scena was bold and convincing on its versitic terms (her Isadora and Juliet have spoken of her dramatic power), but the first act was marred by her disintegration in the tedious bravura of the big solo, inexplicable in a dancer of Miss Chadwick's strong technique.

After an intermidable interval, helpful only in dulling the impression made by orchestral playing that had best be qualified as Adam after the Fall, Miss Chadwick showed us a Giselle of compassionate eloquence and lightness. She had the advantage of an Allbrecht sincere and attentive in Wayne Eagling, a considerate partner and a sympathetic hero.

I Puritani/Barbican Hall

Richard Fairman

Any of the audience who stayed after the interval to hear the tenor's infamous high F will have been disappointed. What we had here was a different version of *I Puritani* in which the soprano takes the famous solo "Credeasi, misera!" for herself and, what is more, delivers it down a third so that she does not have to tackle a high F either.

This concert performance of Bellini's last opera, given on Saturday evening, was billed as "the Malibran version," a world premiere. But that description is perhaps a little confusing: the most major change that Bellini made for his dazzling prima donna Maria Malibran—the addition of the spectacular *polacca* "Son vergin vezzosa"—was incorporated into the standard text of the opera from the beginning and is heard and performed everywhere today anyway.

What is interesting, however, is that this earlier version of the score, intended for Naples, includes several sections of music that the composer cut during preparations for the opera's eventual premiere in Paris.

As it turned out, Maria Malibran never sang a performance of *I Puritani*. But if she had, it is fairly certain that this extraordinary singer with her extended mezzo compass and histrionic excesses would have given a very different performance from the one we had here. Suzanne Murphy, noted in the opera at WNO, is quite the opposite kind of singer—a modest, lyric soprano. If the idea was to recreate a Malibran premiere, a different choice should have been made.

Nor did it help that Miss Murphy was labouring against an obviously serious and announced indisposition. From the rest of the cast she had barely adequate support: Bruce Brewer, often strained and ungainly, as Arturo; Bonaventura Bottone as Riccardo—the role *in this version goes* to a tenor—sounding tight at the top of the voice; and, more successfully, Fiona Kimm, an exciting Enrichetta.

With the leading lady in weak voice and some of the others having little voice to begin with, it was unfortunate that the LSO under Raffaello Monterosso invariably drowned anything that might have been worth hearing. It always seems that we have to *sit* through ultra-complete versions of operas on the evenings that least deserve it.

Adolf Loos, drawn by Kokoshka, and his unfulfilled design for the Chicago Tribune tower

Architecture/Colin Amery

A towering opportunity

The exhibition at the Institute of Contemporary Arts on the work of Adolf Loos—long overdue in England—is crucially important for an understanding of modern architecture and current debate about design.

Loos was born in 1870 and died in 1933, and his best known work is in Vienna, Prague and Paris. This exhibition, *devised by* Yehuda Safran and Wilfried Wang, succeeds, in a somewhat solemn way, in distilling the essence of this pioneer's talent. Much of the success of Loos depends on his writing and propaganda and in this show his work is seen in the context of his major utterances.

It was Le Corbusier who wrote that Loos had "swept clear the path before us and mare a precise Homeric cleansing, as much philosophical as lyrical." This cleansing took the form of a reappraisal of the role of ornament—in the 1900s long overdue.

Today we are thinking again about the role of ornament and of ways to make architecture more beautiful and decorative. Loos took away and refined, but the result was not arid and empty. He rediscovered a classical clarity that was to inspire the Modern Movement, and to lead to a chronic misunderstanding of his austere principles.

In his famous essay *Ornament and Crime* Loos, like Ruskin, was not opposed to decoration but to the wasteful use of human labour and talent. His belief that as civilisation advanced the psychological need for ornament would decline was a serious one. As far as I know no one has ever tried to tally the high points of civilisation with the level of decorative intensity of architecture. How highly would the 20th century be rated in such an assessment.

What is clear from this exhibition and the catalogue is that Loos's roots were neoclassical. Early work shows sympathy to the work of Schinkel and even Ledoux. Today we can see some of the echoes of the simplified Classicism he *admired* in the *work of certain* post-modernists and Italian rational architects.

What I like about Loos is the way he was not just an architect but an articulate and informed cultural critic. He was the sort of man who changed the climate in Vienna and in his long battle with Hoffman established a new sort of creative antagonims. It must have been Vienna that encouraged this sort of constant dialogue and debate—the presence of Wittgenstein, Schoenberg, Kokoshka and Kraus made the talk powerful and the ideas precise.

What of his architectural achievements? All students of modern architecture have seen the Kartner Bar in Vienna. It is famous for being small and ingenious with its ceiling of veined marble, brass trimmed tables and the use of onyx and mirror. His apartment block and department store that was built opposite the Imperial Palace in Vienna was considered by the Viennese public to be an insult when it was unveiled in1910. To our eyes it is an impeccably Viennese block with an upscaled ground floor and a sense of calm domesticity in the upper floors.

His houses—mostly built in the suburbs of Vienna and *sometimes difficult* to visit today—are given a good showing in the ICA. Models show how Loos developed his cubist and stepped forms that reflected an intelligent plan for indoor and terrace living.

To our eyes they do not seem revolutionary, but a close look at their plans show how well designed they are and how they would make for an extremely agreeable way of life. When these villas were designed to be grouped, the possibility of *rooftop swimming pools, a base*ment gymnasium, and a top-lit ice-rink was demonstrated. This sort of communal facility was not realised until the *Werkbund*.

Loos had strong views on art and architecture. He felt that most architecture was a direct response to a need and therefore could not be considered as art. For monuments it was different, and particularly for tombs — as is shown by the simple tomb for Dvorak, a refinement of the mausoleum at Halicarnasus.

The most exciting exhibit is the newly-made model of Loos's design for the Chicago Tribune tower. It is a giant Doric column on a grandly scaled base. Alas, it was never built—it would have been the finest newspaper column in the world. I commend it, quite seriously, to Mr G. Ware Travelstead who wants to build three towers in London's Docklands. He could have all the orders — Doric, Ionic and Corinthian — and London would become overnight the architectural capital of the world.

Loos wrote in 1923 that he was disappointed not to have the chance to build the Tribune tower but he was convinced that one day the great Greek Doric column would be built. Mr *Travelstead* . . . *the plans* exist. The exhibition is at the ICA in London until January 19.

Royal Philharmonic/Festival Hall

David Murray

Kurt Masur's London appearances are among the ripe satisfactions of every recent season. Like Kurt Sanderling, Marek Janowski and the much-lamented Lovro von Matacic—and, I think, the Hallé Orchestra's new director Stanislaw Skrowaczewski—he combines a rigorous care for classical proportions with a gift for natural, musical flow.

He disdains spectacular effects, and the tremendous long-term results of his faithful expositions take one by surprise. Apparently only eastern Europe still nurtures that kind of sensibility. Masur is a model—not to imitate, but to learn from in a chastened spirit—and a tonic.

With the RPO on Friday, he conducted a funny programme: Mozart's frothy flute-and-harp Concerto, K 299, with personality-performers as soloists, and Bruckner's stately Seventh Symphony. James Galway was the flautist—I should call his idiosyncratic tone, on his golden flute, scraggy but winsome—and delectable Marisa Robles the harpist. Like Elisabeth Söderström, she relishes her knack for charming Anglo-Saxons but never allows it to loosen her grasp of musical style.

This time her crisp rhythmic sense was invaluable (in a harp-part still considered very tricky: what must it have been like before the chromatic pedal-harp was invented?) In tandem with Galway's faun-like piping, Masur retreated to a back-up position, and the performance was shamelessly engaging.

About Masur's seemingly simple, robustly lyrical Bruckner Seventh there is almost nothing to remark, except negatively—that he did *not* help himself to this or that or the other effect. Everything sang, and nothing was grandiose; Masur's tempi were in fact very flexible, but the effect of a steady, temperate pulse was perfectly maintained. Each new paragraph was cogently *shaped* and easy, with unobtrusive pointing of key details.

Masur employed only the statutory double woodwinds, but with enriched string-sections to carry Bruckner's argument warmly forward. The whole symphonic edifice was erected by natural steps, and it reached a great height. The RPO—and notably their Wagner tubas—responded *with loyal* finesse. A few more musicians like Masur could *transform* our musical scene.

On the Edge/Hampstead

Michael Coveney

There is a right *load of old* rubbish on the Hampstead Theatre stage, most of it designed by Robin Don. Betty's country bungalow, a pebble-dash shack with a *few* forlorn hollyhocks trailing along the wall, is an unruly dump of old tyres, ovens, twisted metal and proliferating garbage. Betty's last man was a scrap dealer. Her latest partner is a tattooed Liverpudlian in a soiled vest who shares a few of Betty's *grim secrets and asserts his* masculinity by chopping up logs with an axe.

Guy Hibbert's curious play does not explain why anyone should be chopping wood at the height of summer. But that is the least of our, or Betty's, problems. Betty's first daughter Rita (the affecting, lugubrious Phyllis Logan) has a husband inside and children in care.

Her second daughter Cherry (Sophie Thursfield, a striking newcomer) is a traumatised relic of Cold Comfort Farm, while young Kenny (Nicholas Teare) boasts of having sliced off an American soldier's head with a cheese-wire and is given to moody bouts of slow motion physical exercise.

The bungalow is situated somewhere near an American military base in England and a series of recriminatory confrontations and cries from the *heart is activated by the visit* of Betty's first son Jimmy (David Cardy) who is leaving the country with *his* friend Bobby (Erick Ray Evans) to start a garage business in Missouri.

Jimmy has been in the army but is fed up with England. He and Bobby—Mr Evans is the unlikeliest second-hand car salesman I have ever seen — have been known as "the chrome kings of Kilburn." Betty jeeringly suggests that they will *end up even further* down the ladder as mechanics in Ilford. (Mr Hibbert obviously knows as much about Kilburn and Ilford as I do about nuclear physics. All irate Ilfordians please write to him, not me.)

While acknowledging that Mr Hibbert writes a watchable play with speakable dialogue I have to confess being totally unconvinced by what struck me as a spurious and derivative confection owing far too much to the middle period Sam Shepard plays such as *Buried Child* or *Curse of the Starving Class*. Robin Lefevre's well-cast and scrupulous production sounds one prolonged note of inauthenticity, a reaction I have corroborated with a perusal of the text (Faber, £3.95).

We have a party with Dolly Parton songs performed on bongos and guitar by the departing friends; several fumbled sexual gestures either casual or incestuous; rattling of skeletons involving Betty's commercial relationship with the military base and the mental stability and criminal proclivities of her younger children; and a growing sense that old chopper chum Ted (Tom Georgeson), with his sordid plans for organising "the best little whorehouse in Nato," has more power over Betty than is good for either of them.

Anything that *brings* Barbara Jefford back to the London stage cannot be all bad and she bridges the gaps in the character's credibility by giving Betty a chill, even tragic maternal authority. Otherwise, only Miss Logan's grief and desperation at her lot, her pathetic determination to escape, are evidence that Mr Hibbert has a few ounces of the right stuff stashed away after all.

Alastair Muir

Nicholas Teare and Barbara Jefford

Uchida's Mozart/Elizabeth Hall

Dominic Gill

Mitsuko Uchida's continuing Mozart piano concerto series with the English Chamber Orchestra is a continuing delight. There are still six concerts out of the 10 to come between now and June. Tickets are scarce, but can still be had: those who have not yet heard what is, without doubt, some of the finest Mozart playing of our day will not regret the effort.

Barely 12 months separate the composing of K450 in B flat and K467 in C, but set side by side in performance the differ*ence in stature is more than* usually marked: beside K467, the B flat concerto, fine as it is, seems no more than a minor entertainment — the tentative birth of a new manner which, *just one year later, achieves its* magnificent maturity.

Uchida gave K450 with radiant good humour (and with both of *Mozart's* splendid cadenzas), but without making inflated claims for the music. The other movements were buoyant with rhythmic energy; the brief narrative of the andante was calmly unfolded, calmly elaborated. The effect was introductory, a testing of the air — a bringing together of lines of force which all converged, after the interval, in K467.

The piano tone in K450 had a lovely bell-like clarity, but in K467 it was positively luminous. *Nothing in it seemed* without balance: every element of voicing and texture and accent blended with perfect ease. Her andante, in effortless, eloquent flight, was sustained with wonderful intensity. The finale was at once pungent and irrepressible in its sparkle. It was a short programme, with Haydn's little wind Divertimento in C, HII/7, exquisitely given by a sextet of the ECO, as its overture: and I would have listened to it again, right away, without hesitation, from start to finish.

Arts Guide

Music/Monday. Opera and Ballet/Tuesday. Theatre/Wednesday. Exhibitions/Thursday. A selective guide to all the Arts appears each Friday.

Music

Dec 13 – 19

NEW YORK

New York Philharmonic (Avery Fisher Hall): Charles Dutoit conducting, Glenn Dicterow violin. Copland, Barber, Moussorgsky-Ravel (Tue); Charles Dutoit conducting, Andras Schiff piano. Mozart, Dohnany, Honegger, Ravel (Thur). Lincoln Center (8742424).

WASHINGTON

National Symphony (Concert Hall): Richard Westenburg conducting with Oratorio Society of Washington. All Händel programme (Tue). Kennedy Center (2543776).

Chamber Music Society of Lincoln Center (Concert Hall): With Emerson String Quartet. Beethoven, Bach, Brahms, Jarrett (Wed). (2543776).

CHICAGO

Chicago Symphony (Orchestra Hall): Erich Leinsdorf conducting, Mechthild Gessendorf soprano, Barbara Hendricks soprano, Ann Murray, mezzo-soprano. J. Strauss, E. Strauss, R. Strauss (Thur). (4358122).

BRUSSELS

Palais des Beaux Arts: Belgian National Orchestra conducted by Mendi Rodan with Emmanuel Ax, piano. Mozart, Schubert, Schönberg (Thur). (5124045).

Atelier: Margaret Fincham, soprano and Philippe Gerard, piano (Tue). (5112065).

NETHERLANDS

Utrecht, Muziekcentrum Vredenburg. Lunchtime concert by the Utrecht Conservatory choir (Wed). Bach's Christmas Oratorio performed by the choir and baroque orchestra of the Netherlands Bach Society conducted by Eric van Nevel, with Elisabeth Priday, soprano, Catherine Patriasz, contralto, Howard Crook, tenor and Peter Kooy, bass (Wed). The Rotterdam Philharmonic conducted by Kurt Sanderling, with Kyung-Wha Chung, violin. Händel, Brahms, Sibelius (Thur). Recital Hall: Vera Beths, violin, Anner Bijlsma, cello, Stanley Hoogland, piano, and Marjanne Kweksilber, soprano. All-Chopin programme (Wed). (314544).

Eindhoven, Globe Theatre. The Fontenay Trio. Mozart, Dvořák, Tchaikovsky (Wed). (111122).

Nijmegen, Vereeniging. Anton Kersjes conducting the Netherlands Philharmonic, with Daniel Wayenberg, piano. Haydn, Liszt, Elgar (Thur). (221100).

ITALY

Milan: Sala Verdi del Conservatorio: Mahler's Ninth Symphony conducted by Gary Bertini (Orchestra of the RAI, Milan). (Thur). (701755).

VIENNA

Bach trio. Musikverein Brahms Saal. (Mon and Wed).

Katia Ricciarelli, soprano. Albinoni, Bononcini, Händel, Pergolesi, Vivaldi. Konzerthaus Mozart Saal. (Mon).

LONDON

Royal Philharmonic Orchestra, conducted by Kurt Masur with Ida Händel, violin. Weber, Tchaikovsky and Brahms. Royal Festival Hall (Tue). (9283191).

Royal Philharmonic Society: English Concert conducted by Trevor Pinnock with David Reichenberg, oboe. Bach, J. C. Bach, Boyce, and Händel. Queen Elizabeth Hall (Wed). (9283191).

Bochmann String Quartet: Purcell, Tippett, Rawsthorne and Britten. Purcell Room (Wed). (9283191).

PARIS

Nouvel Orchestre Philharmonique conducted by Antonello Anne Queffelec, piano: Fauré, Debussy, Bizet (Mon). Théâtre Champs Elysées (47234777).

Orchestre de Paris conducted by Daniel Barenboim with Margaret Price, Nadine Denize and the Paris Orchestra Choir conducted by Arthur Oldham: Beethoven Missa Solemnis (Thur). Salle Pleyel (45610630).

Miguel Angel Estrella, piano, orchestra conducted by Hugues Reiner: Mozart, Haydn (Wed). Théâtre des Champs Elysées (47234777).

SPAIN

Madrid, Chamber Music Cycle with Spanish Chamber Orchestra conducted by Jesus Lopez Cobos accompanied by violinist Jose Luis Garcia Asensio: Torelli, Mozart, Bach and Haydn. Teatro Real, Plaza de Oriente 4. (Tue). (2419738).

Saleroom/Antony Thorncroft

A policeman's lot . . .

THE demand for *studio ceramics* is so strong at the moment that today Christie's is holding its third sale of the year in this market. The highlight is a monumental shouldered bottle by Hans Coper, 17 inches high, made around 1970 and carrying a top estimate of £12,000.

It is one of 11 works by Coper in the sale. All the other important names are on offer — Lucie Rie, Michael Cardew, the Leach family and Hamada, while among the younger artists represented are Elizabeth Frisch (with a spout pot estimated at £2,000-£3,000) and Magdelene Odundo. A ceramic sculpture by Gordon Baldwin, entitled "Egyptian Black," which has been much exhibited, is expected to make up to £1,500.

If you have ever fancied owning a policeman's uniform, British or American, you have the opportunity at Phillips on Friday when the auction house disperses the stock of a theatrical costumier. There are almost 250 lots, ranging from an Anne Boleyn costume, in red, to a lurex and net long fishtail drag dress. One lot starts with four bunny girl outfits, offers such frivolities as a French maid and one sexy Scots girl outfit (with scarf), and concludes with a complete set of seven dwarves outfits.

This is followed by a more mundane sale of football memorabilia. There are early team *photographs* — Scotland 1892, England 1891 — in the £30-£40 range; international caps and shirts; medals and ceramic figures, and such oddities as a pair of English mascots, World Cup Willie of 1966 and Bulldog Bobby of 1982, now apparently valued at £20-£30. A plaster bust of Bobby Moore carries a £30-£40 estimate, which looks cheap compared with the pair of leather shin pads forecast to make £20-£30.

Phillips has a good sale of British pictures tomorrow, which includes a rare oil painting by William Prinsep of the landing stage built in Calcutta to honour his brother James, the civil servant and writer; it carries a £15,000-£20,000 estimate. The finish of the 1812 St Leger by John Sinclair after Clifton Tomson should sell for around £15,000 while a painting of a town in Switzerland, probably Chur, painted by *John* Glover around 1833 when he was actually living in Tasmania, is on offer at between £20,000-£30,000.

Among the Victorian paintings at Sotheby's on Wednesday are works by Charles Spencelayh, Frederick Waters Watts and Atkinson Grimshaw. Anyone looking for an Old Master for £1,000 or so should be at Sotheby's on Thursday, for the type of sale at which dealers hope to find a wrongly attributed work which they can prove to be painted by a famous artist.

هكذا من الأصل

UK NEWS

THE WEEK IN THE COURTS

Attempt to step beyond the laws of copyright

A MODEST blow for the protection of proprietary information (or intellectual property) was struck last week when Mr Justice Whitford declined to strike out a claim by Dow Jones Co against Ladbroke Index (a wholly-owned subsidiary of Ladbroke Gronp plc) that the latter has beeo misappropriating the use of the Dow Jones Index for purposes of its gambling activities.

Dow Jones' claim, which seeks to establisb a right to protect its index beyond what the laws of copyright, patent and passing-off provide, is an entirely novel proposition for English courts, but not so legally innovative that the judge was prepared to rule it out of court at the outset of litigation.

Dow Jones is a Deleware corporation, with its principal office in New York. It is primarily a news-gathering and publishing organisation. Among its publications is the Wall Street Journal. It operates several wire services which transmit financial news to subscribers by means of ticker tape and computer link. Since 1896 Dow Jones has been producing and publishing a price average of industrial stocks.

The average enrompasses the stock issues of 30 highly capitalised industrial companies. The companies whosa stocks make up the average change from time to time. The selection of stocks used to compute the average is arrived at througb the use of expertise and experience, and is based on Dow Jones' determination of which stocks are likely to reflect the overall activity of tha stock market in their individual fluctuations in price.

Information

The Dow Jones Industrial Average (or Dow Jones Index) is computed by adding the prices of the 30 stocks and dividing by tha total (30), called the divisor. The purpose of the divisor is to retain continuity in the overall average. The divisor is adjusted to account for changes in per-stock values which are caused by technical factors, such as stock splits or stock dividends. The use of the divisor keeps the everage within e range of numbers which is recognisable as the Dow Jones Average to the public. The divisor, tha list of stocks and the method of calculating tha average are all mada public by Dow Jones.

Dow Jones itself computes the value of its index once a day. Licensees of Dow Jones compute the value of tha index on e "real time" basis throughout the day and disseminate that information via television, tape and electronic print-outs to a large number of subscribers, including banks, brokerage bouses, securities exchanges and commodities exchanges.

Ladbrokes, established in 1964, provides clients with the opportunity to "speculate" or "gamble" an future fluctuations of three of the leading stock market indices and the price of gold. One of these is the Dow Jones; anotber is the Financial Times Index. Ladbrokes obtains np-to-date information on the Dow Jones through the Telerate service. For a charge of about US$1,000 (£700) a month Ladbrokes receives use of a telerate terminal and up-to-date information. Armed with this information Ladbrokes quotes a buying and selling price of the Dow Jones by telephone or telex to its clients. This price is comprised by Ladbrokes based on tbe actual Dow Jones price. This price does nnt necessarily includa the actual index price, being affected by supply and demand and market information. Ladbrokes's clients bet by buying and selling their selected index at tha quoted price.

The name of Dow Jones is used by Ladbrokes in connection with its gambling operations. Potentially this might give Dow Jones the basis for a claim of passing-off. The late Lord Diplock said in a case in the House of Lords in 1979 that it was possible to identify five characteristics which need to be present to create a valid cause of action of passing-off. They are: (1) misrepresentation (2) made by a trader in the course of his trade (3) to prospective customers of his or ultimate consumers of goods or services supplied by him (4) whicb is calculated to injure tbe business or good will of another trader and (5) which causes ectual damage to a business or goodwill of the trader by wbom the action is brought.

The fundamental difficulty facing Dow Jones in its present litigation against Ladbrokes is tbe element of misrepresentation. Some time back, following a complaint by correspondence, Ladbrokes included a disclaimer in its advertising literature to the effect that Dow Jones Inc has no connection with Ladbrokes. Dow Jones regards tha disclaimer as a sleight of hand. The alleged misrepresentation is that Dow Jones' business is connected with the stock index futures contract. The disclaimer, it is claimed, reinforces that connection, rather than operata as a dissociation.

The doctrine of misappropriation is founded upon a decision handed down by the US Supreme Court in 1918. The court upbeld an injunction against the practice of tha Hearst organisation, International News Service, of copying news gathered and published in the eastern part of tha US at great expense by Associated Press, and transmitting it to International News Service's customers on tha west coast for a profit. The court said that in doing this tha defendant admitted that it was taking material that bas been acquired by Associated Press as the result of organisation and the expenditure of labour, skill and money and that in appropriating it and selling it as its own is "endeavouring to reap where it has not sown."

Dissent

The court added: "Stripped of all disguises, the process amounts to an unauthorised interference with the normal operation of complainant's legitimate business precisely at the point where the profit is to be reaped, in order to divert a material portion of the profit from those who have earned it to those who hava not . . . The transaction speaks for itself, and a court of equity ought not to besitate long in characterising it as unfair competition in business."

Unfair competition is tha problem. Even then, there was a powerful dissent from Mr Justice Brandeis which has been adopted in many courts, most notably last year by tha High Court of Australia. But other courts in tha US have developed the doctrine. They hava enjoined unlicensed media from making commercial profit by use of sporting events mounted by others. In none of these cases has competition existed between the parties. (Dow Jones and Ladbrokes are not competitors.) But in each of those cases the plaintiff had created property by dint of expense, effort and investment of goodwill, and the defendant's wrongdoing lay in taking that which he should have purchased.

The action by Dow Jones will now proceed to trial. Lawyers and their commercial clients will watch with interest to see whether English law is prepared to protect commercially useful information in a way that the law of copyright has so far failed to provide.

Justinian

FINANCIAL TIMES
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Monday December 16 1985

The future of Westland

THE ARGUMENT within the Thatcher Cabinet over tha future of Westland, the helicopter maker, can be seen on two levels. There is the philosopbical clasb between the activist ecbool of industrial policy represented by Mr Micbeel Heseltine, Defence Secretary, and the hands-off approach associeted with ministers wbo are close to Mrs Thatcher. The former is pressing for a European aolution to the company's problems: the latter group seems content with whatever decision the directors believe is in the best interests of sbareholders. But the Government ls also committed to a policy of strengthening the European defence industry through collaboration and rationalisation, so that European manufacturers can matcb the economies of scaie enjoyed by the Americans. If governments think that restructuring is needed, they will have to use their purchasing power to bring lt about.

These conflicts bave led to a lack of consistency in the government's approacb to Westland. Although the company's immediate crisis stems from a lack of orders, the underlying problem is that it is too small for the business it is in. It needs either to be part of a larger group or to form collaborative arrangements of sufficient strength to offset its disadvantages of scale.

Driving force

In the summer the company was told that it could not expect any short term help from the Government; it bad to find its own salvation. But wben salvation took the form of a prospective alliance with Sikorsky of the US, the world'a largest belicopter company and a subsidiary of United Technologies, Mr Heseltine felt obliged to intervene. The result was a counter-proposal from tha Italian, West German and French belicopter companies, together with e commitment from defence mlnister to retionalise their helicopter purcbases and development programmes on a European basis.

Tbe driving forca behind this proposal is fear of US domination. The European belicopter industry is weak. It has too mucb capacity and too many employees. Two of the companies are state-owned, with the inevitable consequence of political interferenoe. Although there have been a number of successful joint projects among the four European companies, there is still too mucb duplication in development and manufacture. The entry of Sikorsky, the argument goes, would bamper if not frustrate any further moves towards collaboration and would be the first step towards US control of yet another sector of the European defence market.

Not surprisingly, the board of Westland sees tha matter differently. Sikorsky appears to be offering firmer prospects of work in tha immediate future end Westland sees wider advantages ln the link with United Technologies, wbicb bas other aerospace interests besides helicopters. While the directors sympathise with the goal of European rationalisation, they doubt wbethar it is best achieved under the threat of a financial crisis. In any case they aee no reason wby the link with Sikorsky should precluda continued collaboration within Europe. They are probably more comfortable with an American private sector solution than with a European plan involving state-owned companies and governments.

Clear Policy

Perhaps the future of Westland bas been elevated into a major national issue which is out of proportion to its size or strategic importance. In any case the arguments are finely balanced. The injection of Sikorsky's managerial and technical skills might be e useful tonic for the European industry. Keeping the Americans out may not be the best way of inducing lower costs and higher productivity. Nevertheless the objective of e stronger and less fragmented European industry is worth pursuing if it can be done in a way which makes commercial and economic sense. That proposition is not negated by the fact that the mecbanics of the European solution would tend to be more untidy and political than the American link.

Two things now need to bappen. First, the Government needs to sort out its internal differences and formulate a clear policy. Second, the sbareholders in Westland need to heve access to the full details of both proposals, together with the implications of each of them for future Ministry of Defence orders.

US faces the fiscal facts

FOR FIVE years, President Ronald Reagan has been pulling off one brilliant conjuring trick after another. Outside America it has been his economic wizardry which bas drawn the most attention. Conservative politicians and financiers in Europe and Japan may have jeered that bis stunts with Keynesian deficit financing were the crassest form of cheap trickery but they could never quite conceal their grudging admiration for the results:

From the American perspective it was not in economics but in politics that Mr Reagan performed his most impressive sleights of hand. The main objections to Keynesian ideas about demand management have always rested on fears of inflation among the public and the financial markets. Mr Reagan was able to make reflation work by putting those fears to rest.

He did this first through vebement denunciations of the very budget deficits which he had brought about. Secondly, he managed to retain the confideece of his conservative political supporters in the financial markets by breaking the time-honoured link between fiscal laxity and the liberal social spending which budget deficits had increasingly been used to finance. In part Mr Reagan'e achievements in squeezing social spending were again a consequence of the budget deficits which he simultaneously created and denounced.

Indeed, there was e brilliantly simple formula to many of his economic and political successes. He said one thing, did tha opposite and got tba credit for both. He promised to *balance* the budget, and went on promising it, even as he leunched the biggest reflation in US history; eventually he was re-elected by a landslide as the anti-inflationary President who pulled America out of economic slump. His supporters used to sey that their fiscal policies could only be "done by mirrors" and the trick worked well enough for a while. It was only after last November's elections that the mirrors began to crsck.

The latest and most important crack in those mirrors came last week with the passage through Congress of the Gramm-Rudman balanced budget hill. What matters nbout this law are not its precise provisions, which may not stand up to the constitutional scrutiny of the Supreme Court, never mind the political horse-trading of a pre-election year in Congress. Rather it is the clarity with which it exposes the tough but simple challenge for American fiscal policy in the coming years. There are only two ways of reducing the budget deficit — by raising taxes or by cutting the military, and the civilian, components of public spending. Realistically, after the welcome reductions in non-defence spending implemented over the last four years, there is only one way of moving the deficit significantly below its present level — through a combination of tax increases and major cuts in defence spending.

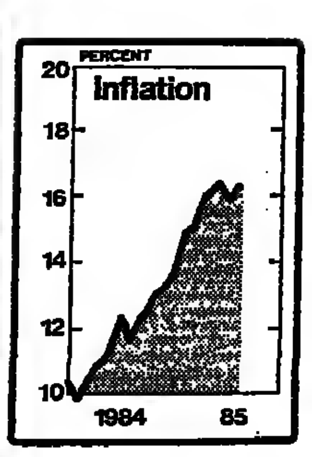
Backsliding

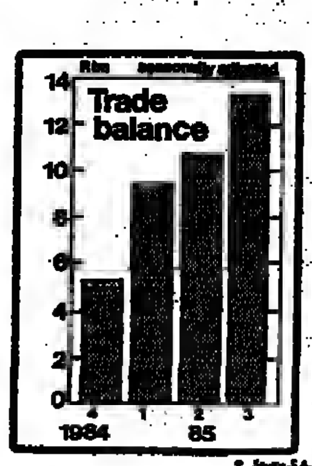
Outside America it has long been clear that these unattractive choices would be tha only way out of the US deficit dilemma. Indeed, one of the reasons why European governments have tended to dismiss the Reagan Administration's demands for fiscal stimulus as a counterbalance against the planned tightening of fiscal policy in America has been tha realisation that e President who rules out tax increases and insists on maintaining his military build-up is unlikely to deliver on his promises to cut the budget deficit.

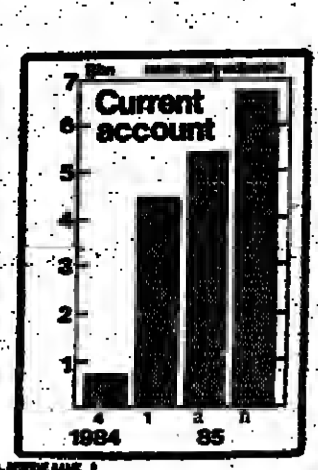
To the American public, however, Mr Reagan's celebrated powers as a communicator hed long obscured those obvious fects of fiscal life. The Gramm-Rudman amendment, for all its crudities and complexities, *should make it much harder* for Washington to conceal the truth about its fiscal actions in future. *This* does not necessarily mean that the US will cut its budget deficit. Indeed, major backsliding has already occurred over the deficit target for the current fiscal year. Bul it may force American politicians to face up to the real economic consequences of thelr decisions on taxes and public spending. At least the onus will be on those who produce the deficits, with President Reagan at their head, to justify them, instead of pretending they are somebody else's responsibility or trying to make them vanish into thin air.

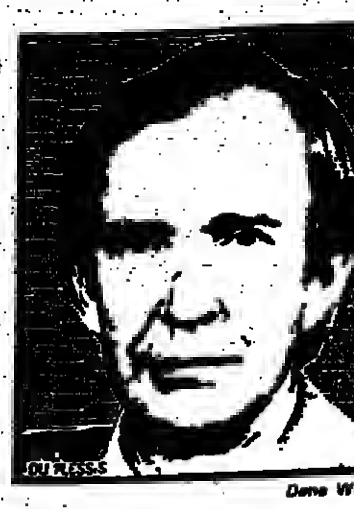
SOUTH AFRICA


BOTHA








DU PLESSIS

Dave Wilson

A time to be brave, a time to be clear

By Anthony Robinson in Johannesburg

AMERICAN BANKERS, who started last August's rush for the South African exit by calling in some of their short-term loans, were not impressed by the rescheduling proposals put to them by Dr Fritz Leutwiler last week.

But even if the technical details of tha package had been more acceptable, the absence of a political dimenslon ruled out a more positive response from bankers wbose main preoccupation is not South Africa, but the loss of business from domestic customers motivated by the anti-apartheid crusade.

Politics, and the admonitory finger of President P. W. Botha in his famous speech in Durban on August 15 when he said that South Africa bad crossed the rubicon of apartheid reform sank the rand. Politics will continue to decide its fate, and that of the economy generally, in the months ahead.

This simple message is well understood by the business community which has bombarded the government with statements and press advertisements calling for the scrapping of all racially discriminatory legislation.

Businessmen have even embarked on their own foreign policy by speaking out in foreign forums and undertaking a pilgrimage to Lusaka to talk to the banned African National Congress (ANC). But the message seems to have been lost on the politicians. A senior South African editor who discussed the government'a reform programme with ministers recently was deeply discouraged to find that the main question was not how foreign bankers were likely to react to the reforms to be introduced next year, but wbat would be the reaction of the Conservative Party (CP) and rigbt-wing white voters. They gave 45 per cent of their votes to the CP and the aven more right-wing Herstigte Naslonale Party (HNP) in last month's five by-elections.

The three-month extension until March 31 of the original four-mouth debt standstill announced on September 1 means that President Botha and his government have one more chance to pursuade the international community that South Africa is genuinely committed to the ebolition of apartheid.

The chance to make that breakthrough will come at the end of next month when President Botha makes his keynote policy speech at the opening of parliament in Cape Town. How be makes his address will be almost as important as what it contains. On August 15 he dismayed mucb of his local and all of his foreign audience on both counts with a truculent "don't push us too far" delivery of a speecb singularly lacking in the new policy departures touted in advance by his Foreign Minister and others.

The irony is that a speech which relnforced the stereotyped image of intransigent Afrikanerdom abroad failed to impress the voters of Sasolburg or Vrybeid at home. Whatever credit Mr Botha may have won for standing up to the "Uitlander" in his Durban speech was in any case soon dissipated by the plethora of reform hints and nods which succeeded it. These confused and disorientated white, blue-collar and farming voters without gaining any kudos from the international community.

In short, Mr Botha has a substantial credibility problem. To overcoma it be recently recelved trenchant advice from Mr Anton Rupert, tha richest and most influential self-made Afrikaner industrialist who quoted approvingly the plea of medieval Swiss soldier-theologian Hulrich Zwingli: "For God's sake, do something brave."

Perhaps Mr Rupert should have added, be brave, but above all be clear. For what bas damaged the government's credibility most is its hablt of announcing proposed reforms without a time-table, or publishing reformist policy recommendations from advisory bodies and then either bedging them around with masses of fine print or failing to make clear whether it was merely engaged in kite-flying or getting ready for ection.

In September, for example, the President's Council, the top level policy advisory body, recommended scrapping influx control and the hated pass laws. A few weeks later the semi-officiel Human Sciences Research Council (HSRC) issued a report ldentifying apartheid as the main source of violence and conflict. Bnt the net effect bas been to raise expectations—only to dash them. The government has yet to pronounce on influx control while Mr Botha's response to the HSRC report was the dry observation that racial tension had existed in South Africa long before apartheid and in any case it was not the Afrikaners but the English colonialists who first built racial discrimination into the system.

That old habits die hard was emphasised yet again two weeks ago when Mr Chris Heunis, the Minister of Constitutional Development (and master of the art of obfuscation end incomprehensibla language), casually let drop during a visit to Soweto that the Government *intended* to *allow all black* citizens to buy freehold property in the townships, provided they bave the money to do so and provided land is available.

The right to purchase also extends to thosa who were deprived of their South African citizensbip under the homelands policy bnt are shortly to have it restored according to a promise made in September.

But it took three days of persistent qnestioning by reporters and others before it became clear that, for those with money, section ten of the Black Urban Areas Act, which lays down strict rules for legal residence in a black township in a white area, was now in abeyance. It is still not clear, however, whether this is intended as a limited substitote for the abolition of the pass laws, which is unacceptable to blacks, or as a precursor of their abolition.

Mr Botha's Jannary speech will stand or fall on its treatment of the President's Council recommendation to abolish influx control and the whole hated apparatus of pass laws. These not only restrict the movement and residence of blecks, but subject them to humiliating harassment and have sent over 18m blacks to jail over the last 30 years, many of them several times over.

An unambiguous declaration by Mr Botha that influx control and pass laws were to be abolished and replaced by a system of "orderly urbanisation" linked to the abolition of the vexatious restrictions on black enterprise, as recommended by another committee of the President'a Council last month, would be perceived as a step towards ending apartheid by the black community.

Had the Government moved on this front three or even two years ago (before introduction of the controversial tri-cameral constitution and the accompanying economic recession) much of the impetus behind the violence and radicalisation of tha past 21 months which has cost nearly 1,000 livee and changed the nature of black politics and aspirations, might well have been dissipated. As it is, key moves on the socio-economic front such as abolition of influx control will no longer stop parallel demands for an end to the state of emergency, curbs on the abuse of police power, the release of political prisoners and the start of genuine negotiations about power sharing with black leaders, including those like Nelson Mandela, leader of the African National Congress, who are still in jail or in exila.

What these demands imply is the opening of a political Pandora's Box fraught with risk and potential conflict. In fairness it is a decislon which is easier for foreigners to urge than a government responsible for the consequences to accept. Bnt the unexpected decision of foreign bankers of all people to pull the plug on apartheid has created a financial imperative for change which is proving more effective than decades of moral outrage.

With the population increasing at 2.8 per cent a year, mostly in the black community, steady economic growth of around 5 per cent is required to make a dent in unemployment which is at present unofficially estimated at around 25 per cent of the estimated 12m potentially active working population. Economists estimate that only 3 per cent growth is possible from domestic sources, at best. Foreign investment is essential for the growth which could make black political emancipation meaningful.

But what of the immediate economic future? Despite an inflation rate of 16.8 per cent, three times the OECD average, the authorities have switched priorities from the fight against inflation to mild stimulation of the economy through tax cuts, higher government spending, including a R600m job creation scheme, and lower interest rates.

The Reserve Bank has cut its bank rate seven times since May and commercial banks' prime rates have dropped to 16.5 per cent (that is to say below the inflation rate) from 25 per cent over the same period.

After a drop of at least 0.5 per cent in the GDP this year growth is expected to rise by 3 per cent next year—provided that exports are not seriously affected by trade union or consumer boycotts, that the good spring rains continue to give an exportable maize surplus and good harvest generally and that consumers recover confidence.

Hitherto, the main positive feature to emerge from the sharp recession and collapse of the rand over the last 18 months has been the current account surplus which was running at R6.9bn on an annualised basis in the third quarter of 1985. Import volumes have been depressed by the recession while export volumes and receipts have been greatly increased by rand depreciation. According to the Reserve Bank, export volumes rose by 48 per cent between the third quarter of 1983 and the second quarter of 1985. Ominously, however, export volumes dropped by 3 per cent in the third quarter of this year with coal, iron ore, sugar and wool shipments all lower.

The need to maintain a substantial current account surplus in order to finance debt servicing (all interest payments continue on the $24bn debt despite the freeze on capital repayments on the $14bn of private sector debt) inevitably casts a shadow over growth beyond 1986.

Governor de Kock and Finance Minister Barend du Plessis justify the reflationary policies now in train by the absence of demand-push inflation (as opposed to cost-push inflationary pressures still being transmitted through the depreciated rand). They also point to the considerable degree of under-utilised capacity, and the need to stop the rise in bankruptcies and unemployment.

But higher government spending, 23 per cent above budget estimates over the first seven months, is viewed with concern by economists and the private sector who resent the high taxes and swollen bureaucracy.

The authorities have ceased making predictions about the gold price. But with 50 per cent of hard currency earnings coming from this source elone, and over 75 per cent from the mining sector in general, they are looking anxiously at the turmoil in oil markets and the likely impact on currencies, world inflation and gold.

The rand is subject to as many external influences as the yellow metal. Governor de Kock, ever the optimist, recently forecast a stronger trend as the effect of trade leads and lags distortions unwinds in the new year. But with an estimated $3.5bn maturing next year out of the $10.3bn of debt not covered by the capital repayment freeze, downward pressures will continue, unless creditors egree to roll-over or reschedule.

What South Africans wonder is whether the international bankers would be prepared to help finance the huge sums required if apartheid reform is to lead to positive structural changes in the economy.

It was a point made by Arthur Hammond-Tooke, chief economist of the Federated Chambers of Industries, who remarked *à propos* of the debt rescheduling talks that "what South Africa needs is not rescheduling but refinancing."

This is way South Africa is seeking not just an an agreement for the orderly repayment of its $24bn foreign debt but a "normalisation" of financial flows which will allow the economy to grow at a faster rate than will be possible if the country is forced to become e net capital exporter for the next decade and beyond.

Men and Matters

Stirrings in the Bretton woods

"For the first time after 40 years you have the development of a constituency in the political system for support of these institutions," says Charls Walker, a former under secretary at the US Treasury.

Walker is talking about the Bretton Woods committee, formed to support the World Bank and the International Monetary Fund (which were shaped at the original Bretton Woods conference).

The committee has just released a statement of support for US Treasury secretary James Baker's third world debt initiative.

Policy statements are not really the committee's bag. It is gearing itself up for future battles in Congress over the financing of the World Bank, and its soft loan arm, the International Devalopmant Association. In tha next year or so Congress is going to have to vote for or against a more active, and ultimately more generously funded, World Bank.

Tha Bretton Woods committee boasts the support of a wida range of businessmen including Thornton Bradshaw, chairman of RCA, end Douglas Danforth, chairman of Westinghouse Electric, as well as some of Washington's most influential figures.

Also on the membership list are two men, Richard Debs of Morgan Stanley, and John Hennessy of Credit Suisse First Boston, who have been mentioned as possible successors to Tom Clausen as World Bank president.

Supporters of the World Bank and the IMF recognised after the near-defeat in Congress two years ago of the IMF quota increase, that an organised nationwide effort to build support for the bank, and the fund, was needed.

The Bretton Woods committee has recently held three of n planned series of 20 conferences round the US to try to explain to sceptical Americans that tha bank and the fund are not simply, as many of their critics maintain, organisations to bail the banks out of lending blunders in the developing world.

Paper money

Andre Fontaine, the editor-in-chief of Le Monde, bas good reason to be feeling pleased.

When he took over the paper almost a year ago its finances were in bad shape, its staff demoralised end its readers beginning to wonder whether the paper could survive.

Now the picture is altogether different. Le Monde has raised FFr 15m in fresh capital from its readers, well in advance of the deadline for the closing of subscriptions.

The backing marks e turning point for the paper.

Fontaine, who has spent most of his working life et Le Monde, and who presides over it like a parson shepherding his flock, prenared tbe ground well.

First, he carried througb painful cuts in staffing and salary costs. Then he sold the paper'e offices in the Rue des Italiens. The two moves gave credibility to his plans for financial restructuring.

He has improved the look of the paper with a less cluttered front page and articles that are shorter and come to the point more quickly.

He also showed n flair for PR when be organised n successful open day at tha paper recently. Several thousand readers queued for up to three hours to be shown round its offices.

Le Monde is not the first French paper to turn to its readers for help. A precedent was set last year when the Evenement de Jendi, a new weekly, was lanncbed entirely by readers' subscriptions.

For Le Monde the alternative to appealing to readers to buy FFr 500 shares was to open tha paper's capital to outside institutions. There was deep opposition to that among the paper's staff.

Le Monde has yet to make clear the editorial line it will take in next year's parliamentary elections.

Fontaine is n man who likes consensus end hates conflict. Ha has the rationalist's helief that all men of goodwill and common sense can be hrought together to push behind the same wheel.

But not even his charm and advocacy of conciliation are likaly to disperse the antagonisms that now divida the left and the right in France.

West End view

Management consultants A. T. Kearney (pronounced Karney in the oulde Irish way), has heen sufficiently excited by the prospect of the City of London's Big Bang, and London's possible future as the hub of world business, to shift its international base from Chicago to the West End.

Philip Banks, aged 52, who has been running the British offshoot, is taking charge of the company's international team of consultants (outside North America and Europe) from a London headquarters.

British-born Michael Thomas, aged 42, who comes from a Sheffield stealmaking family, is following Banks as managing director of tha Kearney British company.

Thomas graduated in history from Cambridge and went on to do a spell on the engineering shopfloor in Peterborough. Later he took a business degree at the European Institute of Business Administration, Paris, and then joined Kearney. He has been running the group's Benelux operations.

He has his eye on London's burgeoning financial services industry whare, he says, "bankers need business management."

Tory faces

Much innocent merriment at Westminster over the appointment of two sharply contrasting parliamentary private secretaries at tha Department of Education and Science.

Both are women. Tha fascination to Westminster-watchers is that they represent symbolically, in their contrasting ways, the two faces of the Conservative party.

Edwina Currie, who will be pps to Sir Keith Joseph, education secretary, is the epitome of the able, highly ambitious, Thatcherite. She makes her *points forcibly and at length in* the slightly harsh accent of the Midlands.

In contrast, the brightest of the younger "wets," Chris Patten, the minister of state for education, has picked a very different Tory lady, Virginia Bottomley, to be his pps.

She comes from an upper middle class background of service to the community, as the daughter of John Garnett of the Industrial Society. She used to work for the Child Poverty Action Group.

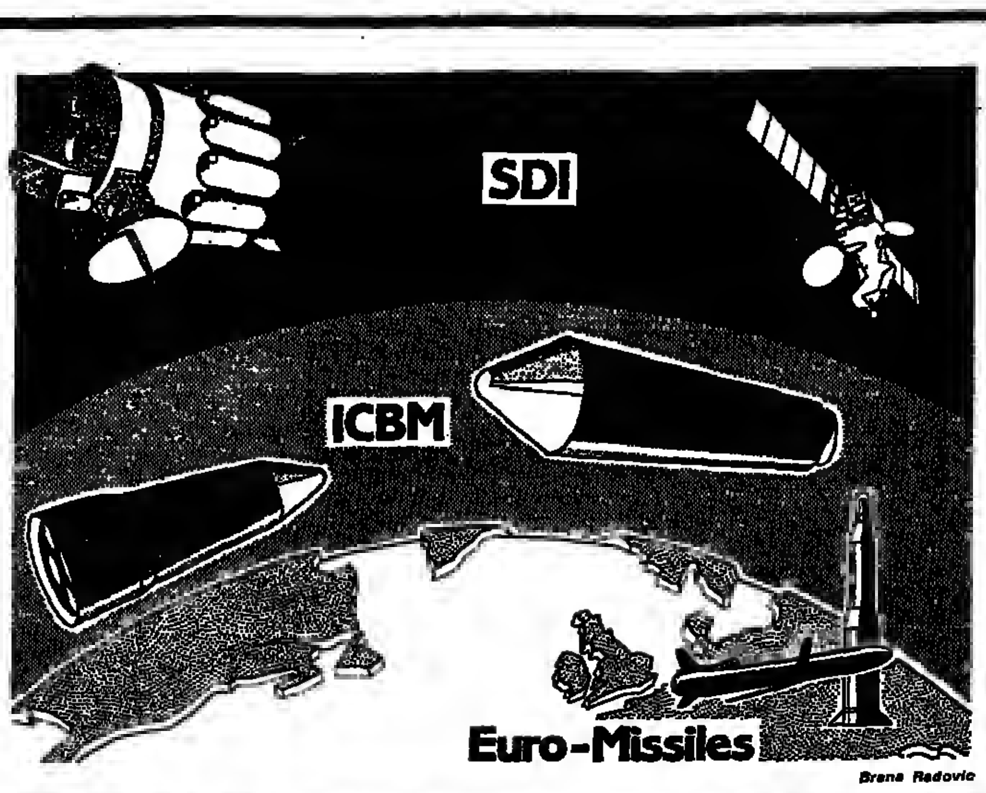
Is someone at the DES trying to make a point.

Observer

Foreign Affairs: Arms Control

Leverage, linkage, and the Little Phrase

By Ian Davidson



PRESIDENT Ronald Reagan and Mr Mikhail Gorbachev have told the world that they intend to give greater impetus to their joint arms control negotiations. But if so, how is this greater impetus going to show up when the formal negotiations resume in Geneva next month? Which are the issues which could unlock the door to greater progress—and which side will have to move first?

The most interesting novelty in the Geneva summit communique was a little throw-away phrase which referred to "the idea of an interim INF agreement." This little phrase caused a lot of people to prick up their ears, because it implied new evidence of Soviet movement, and suggested that the first progress in the new round would be made on *Intermediate-range* Nuclear Forces, that is, on Euro-missiles, rather than on long-range strategic forces. But logic and leverage point to a quite different conclusion.

The Geneva talks are formally divided into three sub-negotiations: strategic nuclear weapons; Intermediate-range Nuclear Forces (INF); and space weapons, which is short-hand for President Reagan's Star Wars anti-missile defence programme. From the beginning, the Russians have not merely insisted on the indissoluble link between these three sub-negotiations, they have also tried to muddy the distinction between strategic weapons and INF, on the grounds that both types can reach Soviet territory. The US, by contrast, has from the beginning tried to separate the three baskets, in the hope of getting *an arms control deal without* having to offer any concessions on Star Wars.

So if Mr Gorbachev is ready for an interim INF agreement, that suggests a slackening of the Soviet link between INF and the other two baskets. The more the Russians move in this direction, the more encouraging *it looks to the US; American* officials are openly prepared to describe the little phrase as A Good Thing.

It also looks like A Good Thing for a different reason. For years now, the Russians have tried to negotiate away America's right to deploy *any* medium-range missiles in Europe, without *conceding* a comparable ban on their own SS-20 missiles. They claim that there should be a "Euro-strategic" balance, in which the SS-20s would be set against the British and French nuclear forces.

Now it was never easy to make much consistent sense of Soviet proposals, which at one moment seemed designed to deny the legitimacy of any US medium-range missiles in *Europe; at another to redefine* them as "strategic," which is tantamount to conceding that their *deployment may, after all,* be legitimate. Moreover, it is absurd to expect the US to sign with the Soviet Union an INF agreement whose implementation would depend entirely on other countries (Britain and France) *which were not party* to it.

The message implied by the little phrase is partly confirmed by a recent shift in the Soviet position at the formal Geneva negotiations. There they have suggested a new type of Euro-balance, in which the US would keep 100 cruise missiles (but none *of* the super-accurate Pershing II ballistic missiles), while the Soviet Union would deploy as many SS-20s as were required to balance the combined total of these US missiles and the British and French forces.

Inevitably, the word "interim" sounds an ominous warning note; this preliminary agreement would be followed by another, in which all 100 US cruise missiles would be removed. *Obviously,* the US *could* not agree to either part of the proposal as it stands. But an optimist would say that it may represent an important stepping-stone towards the recognition that if the Soviet Union wants an *INF* agreement with the Americans, it will have to be an agreement about American and Soviet weapons, not about the weapons of some other countries.

So does the optimist go on to conclude from that a deal on INF, even in interim form, is likely to be the first thing to emerge *from* the Geneva negotiations? On the contrary, he wonders if the Soviet moves on *INF may not be a preparation* for much more serious negotiations on long-range strategic weapons. There may eventually be an INF agreement, or there may not; but in any case it is unlikely to emerge until agreements are within reach on the two biggest issues, strategic nuclear weapons and Star Wars.

The purpose of these negotiations is, after all, to find solutions for some of the anxieties of the two super-powers, and it *is* the most serious anxieties which will be the key to the final outcome. The major anxieties are: for the Americans, the size and accuracy of the Soviet multi-warhead land-based missiles; and for the Russians, the potential threat of a new and destabilising arms race.

Unless these two anxieties *can be contained and traded off* against each other, there is virtually no chance of an INF deal. The Russians may be worried by what they see as the Euromissile threat to Moscow; they may even be worried by the *planned* expansion of the British and French nuclear forces; but their chief concerns are unavoidably concentrated on the strategic American arsenal (because of its size and power), and even more on the possibility *that Star Wars will* precipitate *an* unpredictable strategic revolution.

The Americans, for their part, have little reason to be worried by the Soviet SS-20 missiles, because they are not directly threatened by them. They *were* worried, on political grounds, lest the Euro-missile controversy should *profoundly* split the Atlantic Alliance; but we have got round that dangerous corner, *and* even the Dutch have decided to stay in line. Since the Americans have no burning need for an INF agreement of any kind, the Russians have no leverage for imposing an agreement that is inequitable.

The same order of priorities holds true for the west Europeans as well. They obviously want an INF agreement, and they want it more than the Americans, because they *are* threatened by these weapons. But even for the Europeans, the big prize would be a big agreement, and that means strategic nuclear weapons and Star Wars. The Russians may be able to play their propaganda games with the Europeans, but they will not be able to persuade them to give top priority to INF, and they know it.

The Russians *know* a number of other things as well. If *their* top priority is to put a padlock on Star Wars — and everything suggests that it is—then the only key to closing that padlock is a deal on *strategic nuclear weapons,* because that is Washington's top anxiety. The Euro-missile issue is not important enough *to the Americans* to extract concessions on Star Wars. Moreover, the link is even tighter than *that*: Star Wars *may* be a Utopian vision of a better world, but it is also a response to the perceived threat of the Soviet land-based missiles.

Secondly, they know from bitter experience that is not enough to sign an agreement with a US Administration. In the past 13 years the Soviet Union has signed three arms control agreements with the US (the Threshold Test Ban Treaty, *the Peaceful Nuclear Explosions* Treaty, and the second Strategic Arms Limitation Treaty), but none has been ratified by the US Senate. If Mikhail Gorbachev's proposal of 50 per cent cuts in strategic weapons is a *serious* bid, and *not just* a propaganda ploy, it follows that he must be aiming at a final deal which will stand the minutest scrutiny on the Hill; it may even have to look slightly biased in America's favour, if the price *is* a US concession on Star Wars. To go through the domestic hassle of a dramatic 50 per cent offer, to conclude a deal in Geneva, and *then* see it thrown out by the Senate, would be a calamity for everyone, not *least for Mr Gorbachev.*

This has several implications, and one of them is virtually *certain*; the Senate *will* not agree to count the British and French forces as part of the American arsenal. For one thing, the Jackson amendment requires any *future* US-Soviet treaty to be based on equal numbers of weapons; for *another,* the US will not accept treaty obligations which could be upset by independent actions of London or Paris.

Thirdly, since the British and French forces cannot be counted as part of the US totals, it would seem to follow that any British and French contribution to an arms control package can only take the form of unilateral, free-standing undertakings not to increase their arsenals above a certain size. [For example, the UK might undertake not to put more than six warheads on each Trident missile, not to put more than 12 missiles on each Trident *submarine,* or even not to build more than three *sub*marines. (The Treasury would like that. . .)]

But whatever the eventual British and French contribution, the Russians know that it will be the last piece to *fall into* place. Assuming Mrs Thatcher is still in power, these two governments will offer *no* concession on their small nuclear forces until they see, first the depth of the cuts being agreed by the *super*powers and, second, the guarantees that their forces will not be rendered "impotent and obsolete" by the spread of anti-missile defence.

By the same token, US concessions on Star Wars will be the second last piece to fall. The Americans know that Star *Wars is* the lever *which, first,* brought the Russians back to the negotiating table, and then induced them to offer 50 per cent cuts.

The inference would seem to be that, if the Russians are seriously intent on getting an arms deal with the US, then their first priority will be to move on long-range strategic weapons. Of course, Mikhail Gorbachev can choose to play *long, soft and slow, in the hope* of a political shift in his favour: a Labour Prime Minister in Britain, an SPD Chancellor in Germany, or a detente-minded President *and* Senate in the US. But if he has any sense of *urgency about the next summit,* or the one after, it is likely to show up on the big board—long-range strategic nuclear weapons.

Lombard

Memo for budget weekend

By Samuel Brittan

"IF ANYTHING can be misunderstood, it will be misunderstood." In my Wincott Memorial Lecture, I questioned the present fashion for small, highly paid, labour forces at a time when employment is the major economic problem.

As a result, I have been accused of every sin — from believing in a "lump of demand" to "knowing better" than the paid directors of British business, or being against a high growth prosperous economy. I have tried to knock these misconceptions on the head in the fuller published version (Two Cheers for Self Interest) to be published on Thursday by the Institute of Economic Affairs.

The most interesting criticism of it has come from Sir John Hoskyns of the Institute of Directors, who thinks it illegitimate *to try* to second-guess the decisions of a managing director in the firing line. I hesitate to take him on, because the institute has taken the lead in promoting ideas which would enable labour and other markets to work better — most recently plans for simple legal changes which would make it easier for individual workers to claim self-employment status and thus contract out of the whole collective bargaining *treadmill.*

If all pay bargains were individual contracts chancellors *and economic commentators* would indeed be well advised to keep their distance. But as Sir John himself explains, many are not. The predominant model is still, as Sir John concedes, "collective bargaining *within an adversarial relationship*" often buttressed with some degree of monopoly, especially in the public sector.

Unfortunately, the collective bargaining model influences decisions even where unions are weak, both through a desire to keep them that way, and through a climate of opinion which, whenever there is any margin of uncertainty, gives preference to higher pay over more jobs.

My criticism of the Chancellor is not that he denounces excessive pay settlements in *The World at One* but that he stops at exhortation. A financial incentive that benefited companies which favoured jobs over pay would do far more than any amount of words to signal a new climate of opinion.

*The incentive is neither diffi*cult nor expensive. It could consist of a remission of either corporation tax or National Insurance contributions to a company which, to enumerate alternative variants:

- Increased its labour force by more than a threshold percentage; or
- Increased pay per head by less than another threshold; or
- Did both (a belt and braces approach).

This has the great advantage over the much canvassed across-the-board reduction of employers' contributions in that by definition it would not apply where the concession is eroded in pay increases.

If, for instance, the incentive applied to enterprises employing 2m workers at the rate of £500 per head the annual cost would be £1bn.

The payroll incentive has the great advantage over the Layard-SDP inflation tax in being a bonus rather than a penalty. Thus problems of definition and demarcation would not be so crucial. The onus would be on employers to apply.

It has the further advantage of being reasonably easy to apply in a regionally *differen*tial form, as the Secretary of State for Industry might note.

Obviously, abuses would accumulate if the scheme applied for decades, and corporate reorganisations were designed to *establish* fictitious increases in employment or artificially low pay increases.

But until a more competitive and individualistic labour market can be established a payroll incentive could be a valuable transitional measure, which would itself encourage more fundamental change.

It would almost certainly do far more good for jobs than any feasible basic rate tax cuts or threshold increases, or more infrastructure spending.

Those who care to shed more than crocodile tears about unemployment will use every working day until the pre-budget Treasury weekend on January 11-12, to campaign for the payroll incentive in place of the generalised distribution of largesse to those of us with the good fortune to have jobs already.

Letters to the Editor

The danger of generalisation

From the Chairman, Guest Keen and Nettlefolds

Sir,—Mr Griffiths letter (December 5) on the subject of a career in industry underlines the national problem: he was at a loss to reply because, I assume, he had neither the knowledge nor experience to do so.

He could, however, as a tutor, have pointed out to his student, that it is not intelligent to generalise from limited data and anecdotal evidence. The unfortunate experiences *of a few family friends who* have fed him the biased vituperation shown by such phrases as "pompous administrators," "dogmatic accountants," "disgruntled trade union leaders," are not enough to condemn the whole *of* British *industry.* I hope the student is more careful and thorough in his computer programming or the "garbage in, garbage out" rule will apply.

Sir Trevor Holdsworth,
7 Cleveland Row SW1

Sunday with the family

From Mr S. Benians

Sir,—Mr A. Ward (December 10) expresses the hope that the British family will follow the Continental custom of eating their Sunday lunch together at a restaurant, after doing some leisurely *Sunday morning* shopping.

I fear that this is not likely to happen, except on a very small scale. As was reported recently, a senior businessman on a visit to this country, on asking how British workers could afford to take their families out to a restaurant on "those wages," was told that they could not.

Disposable income in Britain is too low to afford the luxury of lunching out with the family on Sundays.

S. M. Benians,
3, Popes Grove,
Strawberry Hill,
Twickenham, Middx.

Livestock marketing

From the Secretary, London Meat Futures Exchange

Sir,—One accusation unfortunately all too commonly levelled against farmers is that they want their cake and to eat it. John Cherrington's article on supermarkets' buying practices (December 3) does nothing to dispel the sentiments behind the comment. On one hand the facility of fixed priced contracts for livestock is demanded while on the other the right to participate in open markets if the price looks attractive is reserved. Seemingly, the two requirements are contradictory.

The livestock industry is notoriously volatile and likely to become more so, which has made any development towards fixed pricing or forward contracting with the livestock farmer fraught with risk.

This fact was uppermost in *our mind when we established* this exchange. The formation committee noted that the prices traded on the exchange would give the industry a price basis on which to base contract agreements, which uniquely reacts to *current market forces* nationwide.

In addition, farmers like Mr Cherrington are now able, as he requests, to have the opportunity of short- and medium-term fixed prices for livestock, while being able to participate in open market price opportunities without jeopardising the budgeted contract performance.

The only requirement to achieve these benefits is active participation. In doing so, a farmer may leave speculation behind where it currently *exists—in the physical trade.*

C. H. Prior-Willeard,
24-28 St Mary Axe EC3.

Let there be variety

From Mr M. van Mesdag

Sir, — Cocoa butter is a vegetable fat. Its main disadvantage is its high cost. That is why much cheaper vegetable fats from alternative raw materials are used to replace some or all of the cocoa butter in a whole host of products all over Europe; much of the brown, chocolate-flavoured material used in bakers' confectionery is of this kind.

The problem mentioned in "MEPs wax lyrical over chocolate" (December 11) arises because in Britain, Ireland and Denmark, the industry is *allowed* to substitute cocoa butter to a maximum of 5 per cent of the recipe and still call the end product "chocolate." In the other European countries products so formulated may not be sold as "chocolate." Similar discrepancies occur in the case of many other food and drink products—sausages, ice-cream beer and milk are examples.

Clearly, it is in the interest of the industry as well as consumers that (a) the widest pos*sible variety of products* at varying price levels should be available everywhere; (b) that those products are called "chocolate" if they are perceived as such by consumers; (c) that — in each case—consumers are in*formed of what they are buying,* and (d) that the law imposes no discrimination against products because of where they are manufactured.

Judgements passed by the European Court ever since the "Cassis de Dyon" case seem to suggest that such a more liberal view will prevail in the end.

The consumer, happily, will vote with his purse.

Martin van Mesdag,
Leeward House,
Ferry Road,
Burnham-on-Crouch,
Essex.

The introduction of a community-wide patent

From the Chairman, Intellectual Property Sub-committee, City of London Solicitors Company

Sir,—The article by Dr A. H. Hermann entitled "A half-baked patents conference" (Dec 5) requires a response. Mr Hermann suggests that HMG has not *been listening to* experts on this subject. This Company submitted a memorandum for *HMG's* benefit at the diplomatic conference. As to the complication and high cost of English patent litigation, we submitted a comprehensive memorandum for improving patent litigation in 1983.

The introduction of the Community patent has been held up for 10 years by lack of ratification by two of the smaller countries, Denmark and Ireland. It is not surprising therefore that pressure has mounted for proceeding without them, in the hope of course that this may help *to overcome* their difficulties.

The latest draft of the protocol on the litigation of Community patents is a much better document, although we have suggested a number of further improvements. The protocol *largely* recognises that the issues of infringement and validity are so often interlinked that it is inadvisable to separate them. The national court will have exclusive jurisdiction for all infringement actions and also counterclaims for revocation of the Community patent, this being the most common means of attack on patent validity. The only restriction is on putting validity *in issue in the less com*mon action for a declaration of non-infringement, but we have submitted that even in this case the Court should be able to consider validity and make a ruling on it at least between the parties.

We are also concerned about the extent (and thereby cost and time) of proceedings *if* all infringement and validity questions are to be heard not only by *national. courts of second* instance but also (excepting solely national law questions) by the new Community Appeal Court (COPAC). We have suggested that consideration be given to putting only specific questions to COPAC for its *adjudication. We recognise* that COPAC has to be a court of appeal in the Continental sense of a full rehearing in order to have some uniformity of decisions, bearing in mind the differing jurisdictions from which appeals will come. We also, however, submitted that any major points of interpretation of the Community *patent* convention and the protocol be referred directly from the *national court of second* instance to the European Court of Justice and not necessarily via COPAC.

We firmly propound the merits of the British system of adversarial litigation in the High Court, involving as it does full discovery and cross-examination of witnesses and a *special* Patents Court, which we believe is becoming more highly regarded in Continental and other *circles.* While having the greatest respect for the qualities of patent agents, we do not believe that their training qualifies them to conduct litigation. Disputes about patents frequently give rise to other legal issues, often involving *an examination of different* legal and equitable rights and remedies. Solicitors involved in patent litigation are likely to have acquired their detailed knowledge and expertise of intellectual property law against a much wider background of qualification and practice in the law.

I would respectfully suggest that we would all be better serving the business community (including small and medium sized businesses) if we pressed for urgent review of High Court patent litigation—and indeed of the whole High Court litigation procedure. To reduce *complication* and *costs,* we urge, inter alia, an earlier identification of the issues and evidence in patent litigation and more powers for the judge to keep the case moving without undue delay.

N. Fox Bassett,
Royex House,
Aldermanbury Square, EC2.

FINANCIAL TIMES

Monday December 16 1985

Michael Morgan on Wall Street

Trading on electronic wizardry

ON A QUIET day, the New York Stock Exchange proudly boasts, it uses more computer power to run its trading and surveillance systems than Nasa employs to make a satellite space launch.

The electronic wizardry is the result of some $150m of investment over the past seven years.

The trading systems handle a daily volume that has grown to an average of 107m shares so far this year. On August 3 last year, the computers coped with the record 236m shares that changed hands, and in a recent simulation, they managed to turn over the equivalent of 421m shares.

Fuelling the growth in turnover has been a surge in merger and acquisition activity, which, the exchange admits, has been accompanied by an increase in the number of questionable transactions.

In recent years, virtually every important merger has first been signalled by a sharp rise in stock prices ahead of the formal announcement. To counter thet, a series of computer systems has been designed to keep track of trading as it occurs.

Last Thursday, the exchange expressed concern about trading in RCA and General Electric stock and launched an investigation into market activity in the days leading up to the merger announcement late on Wednesday.

RCA stock had surged $10¾ in trading on the NYSE and other regional exchanges earlier in the day, on volume of more than 5m shares. During the previous two days, the price had risen $5⅞ again in heavy volume.

Stock trading in both companies had already been monitored through Stockwatch, a real-time check of all NYSE trades as they occur. Stockwatch is programmed to alert surveillance analysts to any deal that exceeds predetermined limits.

A "blip" from the system prompts an approach to the company whose stock has been traded to establish whether a corporate statement or development may account for the unusual activity. Analysts will also check whether the price movement is the result of market rumours, press comment or a broker's recommendation of the stock.

If no simple explanation is found, the stock will be put on special watch, and, of the 50 or so alerts each week, more than half will lead to a further review of the case.

That review will employ the talents of Isis – Intermarket Surveillance Information System – a database of all trading and clearing information of NYSE-listed stocks, whether the trade occurred in New York, on the American exchange, or in Boston or Philadelphia.

Its most sophisticated feature is the audit trail, which provides a full picture of the trade, based on information supplied by the buy-and-sell-side brokerage houses.

"Now you have a full picture of what happened on the floor of the exchange from the time of the trade, the price and the volume," says Ms Agnes Gautier of the NYSE's market surveillance services. "You know who were the actual bodies on the floor who executed the trade and cleared it.

"The analysts can access the information in any way they want. For example, they can ask who traded a particular stock, who traded it between 10 and 10.30, and which was the biggest clearing firm.

"Any data can be extracted in any fashion. Based on that information, we can build up reports on, for example, stocks that closed on upticks or concentrations of buying. If a firm suddenly represents 20 per cent of the buying, we are interested.

"The information is completely massageable here by the analyst, and this is a great step forward."

A third system, Asam – or Automated Search and Match – will speed investigations into insider trading when it is fully operational next March.

The database will hold the names of directors and officials of NYSE-quoted companies and their subsidiaries – the people who would be involved in merger and takeover talks. More than that, it will include information on their school and college education, clubs to which they belong, other directorships and details of their family. The names of lawyers acting for the companies, together with accountants and public relations staff could quickly be added by the companies involved.

In an investigation, the system would cross-check the names of stock purchasers and sellers against the names on file, seeking out connections.

So do the systems work? "I am happy that they do catch people," says Ms Gautier. "Perhaps if you are not too greedy we will not see you. I am not too sure that the SEC would pursue you either if you were not making a profit."

MIXED HOPES OF SUCCESS AS MEETINGS ON ITC DEBT GET UNDER WAY

Vital week for tin crisis talks

BY STEFAN WAGSTYL IN LONDON

THE CRISIS in the world tin market, which arose nearly two months ago, is set to reach its climax this week.

After weeks of delay, the members of the International Tin Council, which has run out of money trying to support tin prices, say they will decide on Wednesday whether to negotiate with the council's creditors. The ITC owes hundreds of millions of pounds to its bankers and to the brokers of the London Metal Exchange.

Many of the 22 member governments have been briefing their delegates at the weekend. Ministers from EEC countries are expected to decide a common position at a meeting in Brussels tomorrow.

At the LME the betting – or perhaps the hope – is that a negotiated settlement of the crisis is in sight. The 13 brokers with tin council contracts believe the council is ready to bargain.

The 16 creditor banks are more cautious. Unwilling to contemplate the repayment of anything less than 100 per cent of their capital, they are under less pressure to make concessions to the tin council than the LME companies, which in some cases might collapse without a deal.

But brokers, bankers and ITC delegates alike acknowledge that they have very little time left. Brokers believe the LME authorities will have to reopen the tin market, suspended since October 24, very early in the new year, possibly on January 6. Mr Ralph Kestenbaum, spokesman for the 13 brokers with tin council contracts, has said the deadline for real progress in the talks with the ITC is on Friday.

If negotiations go ahead, they will centre on ways of minimising the cost of running down the tin council's stockpile. The ITC needs bridging loans of about £340m ($486m) – the £550m originally proposed is now seen as too high – on top of its existing £350m borrowings to complete its outstanding forward purchases, which are due by the end of January. Thereafter, the stockpile would be sold off and the loans repaid. However, most of the council's tin has been bought at well above the £8,140-a-tonne suspension price. If prices settle at £6,000 a tonne when trading resumes, there would be a loss of about £150m to £200m, plus interest.

ITC member governments are worried about two things – first, the cost and risk of bridging finance; and, second, the uncertainty of the eventual loss, which would not be fixed until the whole stockpile was sold – perhaps to five years' time.

The banks, led by Standard Chartered, say they are flexible about amount, terms and cost of loans. However, they reject loss-sharing "in any form." "Any such compromise solution would create a most dangerous precedent for the stability of the international financial system," they said in a statement yesterday.

Country	% share of ITC financing
Malaysia	20.4
Indonesia	12.5
Thailand	10.9
Australia	4.6
EEC	24.7
(including W. Germany	8.2)
(including France	5.1)
(including UK	4.1)
Japan	18.4
Others	8.5
	100.0

Apart from the UK, which has a special concern for the LME's welfare, most of the members have so far refused to commit themselves to contributing to a settlement.

They have denied from the outset any legal responsibility for the council's debts. But slowly political considerations have come to the fore.

For the leading tin producers – Malaysia, Indonesia and Thailand – the key concern is for the future of their tin industries, which employ hundreds of thousands of people. They would rather spend public money protecting those jobs, in some cases with domestic subsidies, than bailing out the LME.

However, they feel that a negotiated settlement might be in their interest as it would help to control the expected fall in prices, thereby minimising the loss in revenues to the mining industries. They also argue that as developing countries they can hardly afford to contribute as much as wealthy tin-consuming nations.

For the consumers, the issue is how to get out of a tin agreement that many of them did not want to join in the first place, with the least trouble. Since the first post-war International Tin Agreement was signed in the 1950s, the consumers have come to believe that the pact, originally designed to keep prices stable for the benefit of producers and consumers alike, has come to serve the interests of producers alone.

Several members, notably West Germany, wanted to follow the example of the US, which quit when the current Sixth ITA was signed in 1982 but were persuaded to stay for the sake of international goodwill.

Britain's EEC partners are now particularly annoyed that the UK is calling on Community solidarity to try to persuade them to help to fund a settlement. They are reluctant to rescue the LME; in their view, new markets could easily be set up in Paris or Hamburg.

However, broader political considerations might carry the day. By adopting the UK's approach on tin, West Germany and France and the smaller EEC countries would be well placed to ask for a few favours in future Community tussles. Similarly, Japan would do itself no harm in the eyes of the Asean countries, which are important trading partners, by supporting a settlement.

UK to move on banking and financial services supervision

BY DAVID LASCELLES, BANKING CORRESPONDENT, IN LONDON

THE UK Government this week takes two major steps in its efforts to create a new and more effective regulatory structure for the UK financial service industry. Both are considered to be crucial to strengthening confidence in the City of London at a time when rapid changes in the financial markets and a series of scandals threaten to weaken it.

Tomorrow, the Treasury is expected to publish its White Paper (policy document) on the reform of banking supervision, prepared in the wake of the Johnson Matthey Bankers (JMB) affair. On Thursday, Mr Leon Brittan, the Trade Secretary, will present the government's long-awaited Financial Services Bill to establish a system of regulation for the City after next year's "Big Bang."

The Banking White Paper, prepared after lengthy consultations by the Treasury and the Bank of England, will propose reforms of the 1979 Banking Act, and is expected broadly to follow proposals put out by the Bank earlier this year to boost its supervisory role.

Specific changes needing amendment of the 1979 Act include abolishing the two-tier banking structure of licensed deposit-takers and recognised banks and replacing it with a single category of banks. But the Government is under pressure not to enshrine too many reforms in statute so as to preserve some of the flexibility of the present system.

Key issues which the Treasury may prefer to leave to the bank's discretion are the enforcement of limits on large loans to individual customers – and the right which the Bank is seeking to engage in a dialogue with a bank's auditors.

Other less controversial points include the redefinition of deposits to take account of new instruments that are appearing in the financial markets, improvement of the deposit protection scheme and procedures for appeals against the Bank's rulings.

The Government wants to bring a new Banking Bill as soon as possible early next year. The Labour opposition has already said that the measures being proposed will not remedy the inadequacies of UK banking supervision, as exposed by JMB. Labour MPs have called for a new bank audit commission and the removal of responsibility for banking supervision from the Bank of England.

Concern about the need to balance issues of investor protection without stifling City markets will also dominate the Financial Services Bill, which will cover most financial markets outside banking, including securities and other investments, financial futures and life assurance.

It is designed specifically to meet the changes in the City where the deregulation of the stock exchange is creating new multi-faceted financial conglomerates, many of them with strong potential conflicts of interests.

Mr Brittan has promised that the new bill will contain fresh anti-fraud measures.

But the bill will also endorse the policy of City self-regulation through a single Securities and Investments Board with powers delegated to it by the Trade Secretary. It will exclude regulation of Lloyd's despite recent scandals in the insurance market because Mr Brittan believes it is too early to say that the 1982 Lloyds Act by which Lloyd's regulates itself has failed.

Brittan Speech, Page 6

Shultz attacks Soviet domination

By Leslie Colitt in Berlin and David Buchan in London

MR GEORGE SHULTZ, the US Secretary of State, yesterday visited two Warsaw Pact capitals – Bucharest and Budapest – after delivering a hard-hitting weekend speech in West-Berlin challenging the Soviet Union's domination of Eastern Europe.

The Soviet news agency Tass has criticised his East European tour as a "hopeless attempt" to undermine the unity of the Warsaw Pact and to "divide" its members. The criticism was also seen as a warning to East European countries not to be taken in by American blandishments.

The Secretary of State said in his speech that, by remaining in Berlin, the US and its British and French allies demonstrated that they did "not accept" the incorporation of Eastern Europe into a "Soviet sphere of influence." Mr Shultz said the nations of Eastern Europe were denied the right – set out in wartime and post-war agreements including Yalta – to decide their own form of government and way of life.

Before embarking on his three-day tour of Romania, Hungary and non-aligned Yugoslavia, Mr Shultz said each had its "own identity" and his talks in each capital would show the US "appreciated and supported" their individual policies.

In talks in Bucharest with President Ceausescu, Mr Shultz pointed out that mounting Congressional criticism of Romania's human rights record might influence Washington's annual renewal of Bucharest's most-favoured-nation (MFN) tariff status in the US market.

Members of Congress have urged withdrawal of MFN status because of Romanian restrictions on emigration and treatment of ethnic and religious minorities. Romanian officials have claimed that US trade preferences are legally tied only to emigration, which has become freer from Romania.

As be began talks with Mr Shultz yesterday, Mr Ceausescu scolded foreign reporters for writing "unrealistic" stories about his country. He also said US-Romanian relations "could be better." The US Secretary of State was due in Budapest last night.

In his speech to the West Berlin Press Association, Mr Shultz repeatedly spoke of the injustice of the division of Europe, Germany and Berlin. He emphasised that "Soviet and East German goals have not changed in Germany or in Europe." Mr Shultz also addressed "some Berliners" who were asking why, 40 years after the Second World War, they were still living under allied sovreignty in West Berlin.

"They ask whether this is not the time to make some changes," he said. "But I think we all understand the continuing conditions that make these arrangements still necessary."

Before coming to West Berlin Mr Shultz had talks with West Germany's Chancellor, Mr Helmut Kohl, on SDI, the strategic defence initiative (star wars), and forthcoming disarmament negotiations with Moscow.

Ministers split over Westland solution

Continued from Page 1

events" Sir John said in an interview on BBC radio.

Mr Heseltine said that the European package would put Westland in the forefront of the technological development of three new helicopter projects, leaving the company with an independent design capability, important to the Defence Ministry, its major customer.

According to MoD officials, the "very substantial" European offer would meet Westland's immediate work gap, by transferring to the company some 3m man hours of work, from Agusta and Aerospatiale. It would also involve orders for six Sea King helicopters from the MoD worth £25m ($35.75m). This British order would not be available if the European solution did not go ahead since it would be paid for out of savings from joint research and development on the three new helicopters. These are the heavyweight EH101, a new joint European medium weight helicopter, known as the NH90, which would be a direct competitor to the Black Hawk, as well as a new joint battle-field helicopter.

Paul Betts adds from Paris: Aerospatiale still believes it is possible to find a European rescue solution, Mr Henri Martre, chairman of the French state aerospace group, said at the weekend. Mr Martre also described Westland's agreement in principle with Sikorsky announced last Friday, as a "betrayal."

He said Aerospatiale and other consortium members were "still in competition against Sikorsky."

While declining to discuss possible reprisals if the agreement between Westland and Sikorsky is finalised, he suggested none the less that Westland would not be able to be a partner in the NH90 Nato helicopter project for the 1990s .

French group in Channel link

Continued from Page 1

each project reacts to different circumstances and priorities.

A meeting between the leading British and French assessors is due on Wednesday in Paris to finalise details of the report before handing two documents to ministers: a shorter digest of the main conclusions and a longer, more detailed analysis.

The schemes being considered are:

- **Channel Tunnel Group:** twin-bore rail tunnel carrying main-line trains and a privately operated shuttle to ferry cars, lorries and coaches.
- **EuroRoute:** road scheme involving bridges, artificial islands and a tunnel together with a separate rail tunnel.
- **Channel Expressway:** separate road and rail tunnels.
- **Eurobridge:** road bridge with 5-km spans and a separate rail tunnel.

World Weather

		°C	°F			°C	°F			°C	°F			°C	°F
Ajaccio	S	15	59	Dubrovnik	S	11	52	Malaga	S	15	59	Salzburg	R	6	43
Akrotiri	S	18	64	Faro	S	15	59	Malta	C	15	59	Seoul	S	-8	18
Algiers	C	13	55	Florence	S	6	43	Manila	S	31	88	Singapore	R	27	81
Amsterdam	F	11	52	Frankfurt	C	7	45	Miami	C	8	45	Stockholm	S	-7	19
Athens	C	12	54	Funchal	F	20	68	Milan	S	7	45	Strasbourg	C	6	43
Bahrain	S	21	70	Geneva	S	4	39	Moscow	C	0	32	Sydney	S	25	77
Bangkok	S	30	86	Gibraltar	F	17	63	Munich	S	9	48	Taipei	F	14	57
Barcelona	S	13	55	Guernsey	F	11	52	Nairobi	—	—	—	Tangier	—	—	—
Beirut	S	23	73	Helsinki	S	-3	27	Naples	S	13	55	Tehran	—	—	—
Belgrade	R	5	41	H. Kong	S	17	63	New Delhi	S	25	77	Tel Aviv	F	20	68
Berlin	S	10	50	Innsbruck	S	7	45	New York	C	-7	19	Tenerife	F	20	68
Biarritz	S	12	54	Inverness	R	11	52	Nice	S	15	59	Tokyo	S	7	45
Blackpool	F	10	50	Istanbul	C	7	45	Oporto	S	13	55	Toronto	Sn	-8	18
Bordeaux	S	7	45	Jersey	S	11	52	Oslo	Sn	-2	28	Tunis	F	16	61
Brussels	C	10	50	Jo'burg	F	23	73	Paris	C	10	50	Valencia	S	13	55
Budapest	F	8	46	Las Palmas	F	20	68	Prague	C	8	46	Venice	S	8	46
B. Aires	C	28	82	Lima	S	22	71	Reykjavik	S	2	36	Vienna	C	11	52
Cairo	S	21	70	Lisbon	S	10	50	Rio de J'o	C	33	91	Warsaw	R	5	41
Cape Town	S	27	81	Locarno	S	5	41	Rome	S	13	55	Zurich	C	7	45
Caracas	C	27	81	London	C	13	55								
Casablanca	—	—	—	Los Angeles	F	11	52								
Copenhagen	C	8	46	Luxembourg	C	7	45								
Corfu	S	17	63	Madrid	C	7	45								
Dublin	C	12	54	Majorca	S	15	59								

Readings at mid-day yesterday:

C–Cloudy D–Drizzle F–Fair Fg–Fog R–Rain S–Sun Sl–Sleet Sn–Snow T–Thunder

Banks reluctant to seek fall in $

Continued from Page 1

to begin preparations for the world economic summit in Tokyo.

There are no plans at present for ministerial-level talks

The emerging European stance will not be welcomed in the US where government officials including Trade Representative Clayton Yeutter and Commerce Department Secretary Malcolm Baldrige have emphasised that further declines in the dollar's value are needed to restore competitiveness, reduce the US trade deficit and fend off protectionist pressures, writes Stewart Fleming in Washington.

THE LEX COLUMN

Opec's barrels of misery

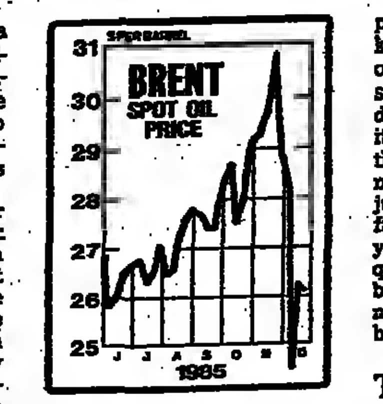
People do not generally join a club which is known to be quarrelsome, has drunk the cellar and cannot repair the roof, and it is little surprise that Opec'e invitation to the world's other producers to redeem the cartel's inefficiencies has been received without enthusiasm.

The response of Mrs Thatcher and Mr Lawson was clear enough: if oil revenues are to leave no room for the bread of tax breaks next year, then the people must eat the cake of lower inflation. As for the markets, they gave the organisation a quick whiff of what the brave new world could mean, trading one cargo at $21.80 a barrel or almost a third below last month's peak spot market level.

Yet although the Opec communiqué makes strange reading, there is justification for it. Saudi Arabia has been wildly signalling for some time that it will not tolerate levels of production as low as the 2.5m barrels a day (b/d) of the summer. One can only speculate at the assumptions being made in Riyadh about the country's domestic and international security at low levels of oil revenue and about official attitudes to Saudi foreign-currency holdings, which are dwindling now even more quickly than in the late 1970s. But it cannot be in the Saudi interest to leave untapped assets that will be producing long after the platforms have vanished from the North Sea.

Sandi Arabia's attempts to maintain price through collective output control foundered on national egoism of its fellow Opec members; understandable, perhaps, that a heavily populated country such as Nigeria should be unwilling to sacrifice living standards at home for the sake of tiny and prosperous societies in the Gulf. In those circumstances, Saudi Arabia acted in September just like an old-fashioned oil company with too much production and too few marketing outlets: it set off downstream. But in inviting the major oil companies to take a portion of its upstream margin in return for the commitment of refining and marketing outlets, Saudi Arabia temporarily suspended its historical policy of price support.

If that was yet another warning to the rest of Opec to make room for Saudi production, it has not yet worked: additional Opec production since September has worked through into industry stocks and the spot price was under pressure even before the Geneva meeting.



Saudi Arabia's next step, to try and put the heat on non-Opec as well as its fellow Opec producers, is more risky.

It is risky because an organisation which accounts for half the world's traded oil and depends on oil for its income is taking on four major producers which have other sources of revenue and export a mere 5m b/d. If the oil price remains respectably above $20, the UK can expect oil sector losses to be made up by the gains from the 94 per cent of non-oil GNP; and the stockbrokers Simon and Coates believe that there will still be room for tax cuts with 1986-87 oil revenues as low as £7.5bn at $23.50 an average barrel and a $1.35 pound.

Saudi Arabia would obviously be keen to see lower oil prices drive out marginal new prospects west of Shetland or in the South China Sea; but not much current production would vanish except with a fall in price which would mean, for example, that Iran could no longer finance its war effort. After all, whereas the marginal cost of a new North Sea field may be higher than $20 a barrel, the operating cost of most fields where capital costs have already been incurred will be nearer $5.

An oil price very much lower than $20 a barrel would cause serious disruption; but it is hard to imagine Saudi Arabia wishing a debt-service crisis on Nigeria or Venezuela – let alone Mexico, for which a $1 drop in the oil price could mean a half-billion-dollar fall in oil revenue wholly committed to debt service. Nor could a country so dependent on the health of the banking system rejoice in the collapse of some Texan banks, which are unlikely to be very well reserved against production loans at a $15 barrel.

Equally, with no marker price to act as a peg and with the non-Opec producers selling at market or market-related rates, there seems no obvious reason why a price fall should halt at $15 a barrel; and Saudi Arabia will merely have doubled its production while receiving less than half the price. For the moment, the market seems to have adjusted to Saudi ambitions with a $2 fall in the price. Saudi Arabia is as yet still producing within its old quota of 4.35m b/d on a quarterly basis; should it resolve to produce more, another price adjustment will be necessary.

Taxing currencies

The taxation of currency gains and losses is a subject on which Parliament – perhaps understandably – has remained almost completely silent and the Inland Revenue has responded only when pressed by a House of Lords decision (and that a year after the event). So irritated were several major companies by the lack of clarity and apparent illogicality of the tax treatment that they commissioned the Institute for Fiscal Studies to report on the matter.

The findings, published last week, claim that the Revenue makes an arbitrary distinction between "fixed" and "circulating" capital which sometimes makes it impossible for corporate treasurers to hedge their foreign currency exposure and otherwise distorts the decisions they take. For instance, it is usually in a company's interest to borrow in a high-coupon, depreciating currency because it can win tax relief on the coupon payments but does not have to pay tax on the capital gain it incurs by using fewer pounds to repay the loan.

To remove these distortions, the IFS proposes that companies should be taxed on the gains and losses of all monetary assets, but only on "permanent" or long-term fluctuations in value. The idea is that companies should not be penalised or rewarded for short-term exchange-rate changes, but only on the expected change in long-term rates, calculated by reference to forward rates or interest rate differentials.

The scheme may be too complicated to enforce – but it at least reduces the potential for abuse of the present system, which should please the Revenue. And it would insulate companies from paying tax on arbitrary fluctuations in rates over which they have no control.

FINANCIAL TIMES SURVEY

Britain and France are on the brink of deciding finally to go ahead with building a fixed transport link between the two countries. Four competing schemes offering a variety of ways to cross the Channel are now being evaluated

Year of decision for project of the century

UK contenders flank government ministers. Left to right: James Sherwood of Channel Expressway; Sir Nigel Broackes of Euro-Route; David Mitchell, Transport Under-Secretary; Nicholas Ridley, Transport Secretary; Lord Layton, of Eurobridge; and Sir Nicholas Henderson of Channel Tunnel Group

THE BRITISH and French Governments will almost certainly decide in the next few weeks to go ahead with one of the world's largest construction projects, the building of a fixed link across the Channel.

Plans involving various combinations of bridges and tunnels, backed by some of Europe's biggest companies have been lodged with the two governments, which are expected to announce their decision by mid-January.

If the project goes ahead, it will be the most ambitious development undertaken by either country. Costs estimated by the schemes' promoters range from £3bn to more than £9bn after allowing for the effect of interest charges and inflation.

Millions of tonnes of steel and concrete would be used in construction and up to 75,000 people could be employed on the link at the peak of the work.

The French Government and more recently the British, strongly support the project. They perceived it as highly attractive, and a potential vote winner during the run-up in the next two years to national elections in both countries.

Mrs Thatcher in a recent interview with the Financial Times said: "I am very anxious to get the Channel link going because I think that our generation needs to do something that is exciting."

The matter, however, is not yet decided and crucial issues have still to be considered.

The key to the development is that it must be financed entirely by the private sector. No government financial guarantees will be given by either country. It is this aspect, more than any other, which will decide which, if any, of the four schemes submitted last month, will receive the go-ahead.

The availability of private finance is not the only issue to be considered. More than 15,000 pages of technical, financial, economic, safety and environmental information, studies and drawings have been submitted by the promoters.

By Andrew Taylor

A fixed link, if it went ahead would have considerable impact on regional and national economies and not just through the temporary creation of thousands of extra jobs during the five years or so of construction.

The sea ferries which ply between the two countries would be seriously curtailed and some routes would undoubtedly be shut down. European Ferries which operates the Townsend Thoresen line says it would continue to compete on the busy Dover-Calais route but would be forced to close many of its longer haul regional routes if even only a small amount of traffic were diverted to a fixed link.

The British arm of Sealink, owned by Sea Containers, the Bermuda-based shipping group and ironically one of the companies seeking to build a fixed link, has given a warning that it will sack all 2,600 workers on its short sea routes to France and Belgium the day a fixed link opens.

Mr James Sherwood, chairman of Sea Containers, says that the only hopes of saving the jobs would be to give his company the mandate to run the fixed link which would take on the redundant ferry workers.

On the other hand, jobs may be created in Dover and the surrounding county of Kent by companies moving near to the portals of a Channel tunnel or bridge in the same way that businesses have moved to Reading, Slough and Windsor, along the M4 to the southwest of London to be close to Heathrow Airport.

Three-fifths of all UK exports and imports now go to or come from other EEC countries. Kent, with the construction of the M25 orbital motorway around London, already connecting this part of South East England with the national motorway network, could become an increasingly attractive base for companies trading with the Continent.

The depressed areas of northern France would similarly benefit as industry and commerce moved closer to the French end of a fixed link.

This would have important implications for regional job creation and planning policies. While French authorities may be delighted at the prospect of companies moving to high unemployment areas in northern France, the British reaction to industrial and commercial development at its end of the link in prosperous Kent, often called the Garden of England, might be more mixed.

French enthusiasm for the project, however, is not simply based on prospects for revitalising depressed areas of northern France. It sees a fixed link as a great opportunity to extend its high speed rail network, based on the successful TGV (Train à *Grande Vitesse*).

British government enthusiasm for a fixed link has arisen more recently.

The change in British attitudes in the last 18 months largely reflects Mrs Thatcher's new-found belief in the project. Her imagination has been fired by the scale of the venture and, most importantly, she has been convinced by advisers like Lord Young, Employment Secretary, and industrialists like Sir Nigel Broackes, chairman of Trafalgar House, that the private sector can and will finance a fixed link.

The big question is whether international banks and financial institutions will supply the large development loans and investment necessary without the official safety net of government financial guarantees. Unofficially the promoters believe it would be impossible, once the scheme is well under way, for the two governments simply to stand aside if the project ran into serious trouble.

Moreover, sums to be raised are not massive by comparison with the cost of developing North Sea oilfields, and these are financed by the banks without state financial guarantees.

Certainly an impressive array of banks and financial institutions have lined up to support the two leading groups bidding for a licence to build a privately financed fixed link.

Detailed financial negotiations cannot begin until after the two governments announce their decision in January. It would still be possible for the governments to choose a scheme only to find that the banks and institutions have decided, after all, not to support the venture.

So what of the four schemes that have been submitted? The two favourites are still thought to be Channel Tunnel Group and EuroRoute although Channel Expressway has gained a lot of ground in recent weeks. EuroRoute proposes a road and rail scheme involving an ambitious combination of road bridges linked to artificial islands connected by a 21-km tube road tunnel. A separate tunnel-only rail link is also proposed.

Channel Tunnel Group's advantage is that its scheme is cheaper than that of its principal rival — about £5bn after allowing for interest charges, inflation and provisions for cost overrun compared with more than £9bn for EuroRoute's scheme.

The technology of a bored tunnel — every independent inquiry mounted for government since 1956 has recommended a bored rail tunnel as the best option — is regarded as less risky than EuroRoute's bridges, tunnel and islands.

The rail tunnel's disadvantage is that motorists will not be able to drive across. Cars and lorries will be ferried on rail shuttles and Mrs Thatcher has expressed fears that a rail-only option could leave the government hostage to hostile rail unions.

EuroRoute's road and rail scheme is more flexible and therefore might be preferred by the British Government if it believed the promoters could attract the necessary private finance.

Channel Expressway, backed by Sea Containers, is proposing a twin-bore motorway tunnel with a separate rail tunnel. It had planned to run trains through the same tunnel as the road but this idea was rejected by British Rail and SNCF, the French state-owned railway.

Sea Containers says its building costs would be much lower than those of the other groups although an all-party House of Commons transport committee this month questioned Expressway's costs. The committee was also concerned about the ability of ventilation systems to cope with heavy traffic in the road tunnel.

The other scheme submitted to the British and French governments is from EuroBridge which proposes a road bridge with 5km spans and a separate rail tunnel.

There is of course a fifth option. The governments could choose to have no fixed link at all, but this looks increasingly unlikely.

The Channel Project 2

Plans to join Britain and France have been proposed for 180 years

Visionaries' challenge to history

IF ALL THE Channel Tunnel studies of the past 180 years were heaped together they might fill as much space as the chalk that would be excavated from any tunnel built between England and France.

Since the days of Napoleon, interminable plans, counter-plans and objections have been churned out by its advocates and its opponents.

The debate between them, sometimes stormy, sometimes subdued, has taken place against the shifting backcloth of two centuries of European and world history, and the growth of modern transport from the age of the horse to the conquest of space.

Although it was consistently opposed by the ports and shipping interests which have most to lose, there always seemed to be an ultimate consensus, on both sides of the Channel, supporting the economics of a link. The biggest clashes were over its implications for Britain's security, particularly in the latter half of the 19th Century and the first 50 years of the 20th.

The scale of the project fired the determination of Victorian railway engineers that it could and should be built. They saw a Channel tunnel as the ultimate challenge to an age which had tunnelled through the Alps and dug the Suez Canal.

The British and French railway owners were only too ready to commission geological studies of the sea bed, to launch rival public companies, and lobby the Governments of the day. Yet although the British were pre-eminent as railway builders, John Bull always shrank from the arms of la Belle France.

Many of the expectations aroused by the scheme now seem either trivial or exaggerated—from Queen Victoria's enthusiasm for a way of crossing the Channel without being seasick to the visionary excitement of John Bright at the removal of barriers between nations.

Such sentiments, like many of the objections, were real enough at the time. Yet the central idea of the crossing, as testified by a comment in the Financial News of February 14 1891, has outlived all these changes.

Reproduced by permission.

Punch cartoon of the 19th century which reveals British fears of an invasion by France if a tunnel were built.

Ingenious minds

The paper, which later merged with the Financial Times, said in an article headlined "Tunnel, Bridge or Tube?":

"That some system of intercommunication dispensing with the necessity for shipment or transshipment will, in the long run, be established no one can reasonably doubt."

"The question is thus one rather of method than of principle, and it is not to be wondered at, therefore, that ingenious minds have for long past been working on the details. No great engineering or financial difficulties stand in the way.... The opposition of the British Government is the one insuperable obstacle ..."

This comment applies not only to the first 90 years of the Channel Tunnel idea but to its subsequent history as recorded in the archives of the British Institute of Mechanical Engineers, in company files and elsewhere.

The first proposal for a tunnel was presented to Napoleon Bonaparte in 1802 by a French engineer called Mathieu. The tunnel, to be used for carrying mails, would have consisted of two ten-mile sections meeting in an artificial island on a mid-Channel sandbank. Matthieu proposed a paved roadway, oil lamps and ventilation shafts sticking out of the water.

The first serious scheme, however, was that of Thomé de Gamond (1807-75), a French officer, doctor and engineer, who devoted his life to it.

He proposed it to Emperor Napoleon III in 1856, frequently revising it in later years in the light of new research. Brunel, Stephenson and Joseph Locke, the leading engineers of the day, pledged him their support and in 1869 an Anglo-French committee was formed to set up companies to seek a concession from the English and French Governments.

The first diplomatic exchange between the two countries occurred on April 15 1870, when the French ambassador in London sounded out the British Government. On July 25 1873, Britain gave its unqualified approval.

In 1874, an international commission set up by the two Governments drafted a protocol for ratification by both parliaments. On February 1, 1875, a French Channel tunnel company was formed. It was to spend some 2m francs over the next 30 years, and sank shafts on the French coast and completed 2,000 yards of tunnel.

Companies were also formed on the English side by rival railway companies, eager to have access to the tunnel. In 1874, one of them sank a shaft and began tunnelling at St Margaret at Cliff, Kent; another began digging at Abbot's Cliff between Dover and Folkestone.

Towards the end of 1882, at the foot of Shakespeare's Cliff, Dover, there was a gallery 1,700 yards under the sea, in which the entrepreneurs staged lavish parties to impress businessmen and politicians.

But suddenly the mood changed. Although French enthusiasm was rarely to waver, the benign attitude of the British Government was swept aside by a wave of fear that the tunnel could become a deadly high road for invasion, cancelling out the power of the Royal Navy. These fears helped to kill two Bills presented in Parliament at the beginning of 1883 seeking powers to build the tunnel and were to influence successive British Governments for the next half century.

It was as a result of such persistent fears that enthusiasts began increasingly to look at solutions other than a conventional tunnel.

Since the chief objection to a tunnel was that it could not be easily destroyed in an emergency, the alternatives consisted of bridges, of combinations of bridges and tunnel, of tunnels in pre-fabricated steel tubes laid on top of the sea-bed, and even of a partly submerged viaduct.

Their common denominator was that they could be rapidly put out of action from the surface should the need arise.

The Financial News article, quoted above, was prompted by a plan by Sir Edward Reed, Member of Parliament for Cardiff, for two separate train-tubes, resting on caissons on the sea-bed, from Dover to Calais. But even this exposed layout did not assuage the fears of the military and Reed had to pull out before a second reading of a Parliamentary Bill to authorise its implementation.

More than a decade later, in 1907, the invasion argument put paid to a major scheme mooted by the Channel Tunnel Company, under the chairmanship first of Sir Edward Watkin and then of Baron Emile d'Erlanger. The Government opposed the scheme—for a twin-bore tunnel—on the advice of the Committee for Imperial Defence, even though the tunnel protagonists had changed their tactics by claiming that a tunnel would be a positive military asset to Britain in case of war.

By 1916 such views appeared to be totally vindicated by the plight of the British and French armies on the Western Front and the need to reinforce them and evacuate the wounded.

A French Government Minister, in October 1916, said: "It is needless at this time of day to offer proofs of the great advantages our two nations would draw from a tunnel under the Channel."

The war over, the Tunnel lobby was convinced that its day had finally dawned and that the objections of the British military were gone forever. It was sorely mistaken. When the issued was referred to the Committee for Imperial Defence in 1924, it handed down the same judgment as it had in the years before the war.

There was to be one more campaign before the rise of Hitler and the Second World War. In the midst of the Great Depression, the Conservative Prime Minister Stanley Baldwin set up a commission to look into the economics of the scheme. It concluded that a tunnel would be of economic advantage to the country, that the work should begin with a pilot tunnel and it should be financed purely by the private sector.

But once more defence objections prevailed. In 1930, with Baldwin now replaced by Ramsey MacDonald, a Cabinet statement said that "so long as the ocean remains our friend, do not let us deliberately destroy its power to help us.... There is no justification for a reversal of the policy pursued by successive Governments for nearly 50 years."

When a motion supporting the tunnel was put to the House of Commons it was defeated on a free vote—by only seven votes.

It was to take World War Two, the final supremacy of air power, and the advent of nuclear weapons of mass destruction to take the tunnel issue out of the hands of the generals and back into those of politicians, of engineers and entrepreneurs.

In July 1966, Prime Ministers Harold Wilson and Georges Pompidou issued a resounding declaration that "the two Governments have now taken a decision that the tunnel should be built." In 1973, the Government of Edward Heath said it had decided to "commend this historic project to Parliament and the country."

Although the link could now be considered vulnerable to terrorists, the delays of the next decade stemmed not from the security bogey but from the sheer difficulty of raising the money.

Maurice Samuelson

Tunnel works on the English coast in 1882

Reproduced by permission. Punch cartoon of 1873.

STEWARD (on night-Channel boat): "If they bring in this 'ere tunnel, my job's gone."

MR PUNCH: "That's the only sound objection I've heard yet."

Big challenge for the financial sector

WHICHEVER scheme is finally chosen by the British and French governments to cross the strip of water that separates them, the financial markets of London and Paris will be asked to fund an infrastructure project more ambitious — and expensive — than any in recent history.

The determination of both governments that the private sector should bear the full cost of the project has presented the banks and institutions of both capitals with a most unusual challenge.

The sponsors of the rival schemes have faced, in their financial preparations, at least three common problems. The first is the sheer size of the financial commitments required.

In current prices, the schemes range between roughly £2bn and £4bn. While the utility characteristics of the project mean that, once a fixed link is in place, debt servicing costs can be met with some predictability from cash flow, the construction stage requires a very substantial injection of venture capital.

The banking system is familiar with large-scale infrastructure projects from, for example, the development of the North Sea; but the capital markets of Europe have never before been asked to provide risk capital on such a scale.

Second, the promoters of each scheme have been faced with the conundrum of securing financial support for a project which has not yet been approved. Neither prospective shareholders nor potential lenders have been keen to make firm commitments to a scheme authorised by government; but without indications of financial support the rival sponsors are unlikely to make much impression on the vetting ministries.

For institutional shareholders and most lending banks, this has been an insuperable problem. Little is lost, after all, by making provisional commitments to almost everyone at this stage. But the lead bankers and advisers have found it less easy to hedge their bets.

Finally, the sponsors have been required to strike a balance, in funding terms, between financial markets of different capacities. Whereas London provides an equity market which, as proved by British Telecom, has the capacity to provide very substantial quantities of capital at a stroke, the Paris bourse has never been tested by a new issue of the size demanded by the Channel project.

Conversely, French banks may be readier to provide the requisite loan finance—owned as they are for the most part by the French Government—than their counterparts across the water. But the logical solution—to weight the equity towards London and the debt towards Paris—is not so straightforward, since it implicitly rewards British investors more highly for their riskier commitment.

Both Euroroute and Channel Tunnel Group, which arguably have the most developed financial proposals, expect to raise a significant proportion of the necessary finance outside the UK and France. CTG, for example, has commissioned Nomura Securities, one of Japan's biggest financial institutions, to handle a share sale in Tokyo, while Salomon Brothers, the leading Wall Street investment bank, will take care of the US financing.

Euroroute, which will look to the international debt market to refinance some of the initial bank debt, has a comparably high-powered consortium signed up.

But the main burden will inevitably fall on the capital markets of Paris and, in particular, London. Stockbrokers Phillips and Drew have come up with the intriguing proposal that, as the private sector is providing the capital, the private sector should be in a position to select the scheme.

Alternatively, the Governments might approve several consortia and then invite them to bid for the sole concession.

Yet, while politicians will make the final decision, they cannot afford to ignore the views of prospective financiers. The official nightmare is a half-finished link, to which the private sector will commit no more capital and which the governments will be obliged to complete.

In the weeks leading up to the submission of plans, City institutions were lobbied intensively by the leading contenders. CTG came out ahead of Euroroute on points, not least because of the more modest funding requirement.

Since there seems, in the early years at least, not much to choose between the two in revenue terms, CTG appeared to provide both a higher return on investment and a more attractive risk-reward ratio. Phillips and Drew calculates, however, that the highest equity return should be achieved by a relatively late entrant, Channel Expressway.

On P and D's more pessimistic calculation, Expressway emerges with a nominal internal rate of return of 15.5 per cent, ahead of CTG on 14.5 per cent and Euroroute with 11 per cent. The more optimistic calculation has Expressway returning 22 per cent, CTG 21 per cent and Euroroute 16.2 per cent.

John Makinson

Different political priorities become a factor

Lobbyists make their final push

"WHEN I return to metropolitan London from Ramsgate and see the promoters, glossy PR men in their biscuit suncoloured suits, driving their BMWs to and from the Ritz taking Members of Parliament out to expense account lunches twice the average weekly wage of a Ramsgate worker, I get angry.

"Those sort of people do not understand what the destruction of a small community's principal employer and central industry will mean in terms of economic and human misery and despair."

These words in the Commons on December 9 by Mr Jonathan Aitken, Conservative MP for Thanet South and a critic of the approach of the Government and the promoters, sum up some of the delicate political issues involved with the Channel fixed link.

The activities of the lobbyists on behalf of the rival promoters have themselves become a political factor. Lobbying of politicians, both backbenchers and ministers, has been on a large scale, reflecting the size of the project.

Their efforts, brought into the centre of political controversy by BBC 2's Newsnight programme on the night of the Commons debate, have involved meetings with MPs of all parties from throughout the country as well as discreet private conversations with civil servants and ministers.

All the arts of public relations have been deployed as well as more obvious propaganda weapons. Stands were set up at the main party conferences by two of the leading promoters, in one case featuring a working model where lights could be operated by pressing a button.

Most controversial has been the employment of MPs to work, directly or indirectly, on behalf of the various promoters. The Newsnight programme noted, for instance, the activities of Mr Den Dover, Conservative MP for Chorley, who is parliamentary consultant to George Wimpey, a member of the Channel Tunnel Group consortium, and who receives a fee of £8,500 a year. He is also a member of the Transport Select Committee which recently reported on the project.

Mr Dover said he watched out for developments in Parliament which would affect his client and had aranged meetings to brief ministers and parliamentary private secretaries.

These disclosures have provoked considerable comment in the Commons. A number of Labour MPs have alleged that these payments to members were "bordering on corruption." Mr David Winnick, a Labour member who has been arguing for a tightening of the register of members' interests, said there was "the utmost pressure" on MPs by companies involved in the Channel project and payments were being made to MPs.

This raises a number of ethical and political questions. The current convention is that MPs declare any financial and other business interest but there has been controversy about whether the register provides sufficient detail.

A problem is that some MPs merely list in the register the lobbyists or public relations firms for which they are consultants or directors and do not name the clients of these bodies for whom they act.

The critics argue that outside bodies are therefore able to buy privileged access to the facilities at Westminster which go beyond the traditional rights of MPs to represent the views of outside interests either in their constituency or trade union.

An equally pertinent question is whether this lobbying activity makes any difference at all, beyond informing MPs of what the various projects entail.

Sir Nigel Broackes of Euro-Route indicated in his interview with Newsnight that lobbying was helpful last year in creating the interest and momentum which led to the British-French decision to invite bids for a fixed link. However, he doubted whether it was any use lobbying now for a particular scheme.

Indeed, it is arguable that such activities — notably the briefing of the Sunday papers by one promoter — have been so blatant as to be counterproductive. Mr Nicholas Ridley, the Transport Secretary, and his Cabinet colleagues are not likely to be influenced by such pressure or, indeed, by the recommendations of the Transport Select Committee.

Sir Nigel and Sir Nicholas Henderson of the Channel Tunnel Group have said that they have been in touch with a number of ministers informally but that is very different from some of the crude lobbying and use of MPs on retainers which have been the subject of complaints.

The real question is not so much whether MPs are being influenced to favour one scheme or another as whether MPs themselves have any influence at all. The Commons debate on December 9 was marked by a sense of fait accompli.

The Prime Minister's enthusiasm for the project is clear and well known. Hence everyone who spoke believed that it would go ahead. There was also surprisingly little argument in favour of one scheme or another.

The debate was dominated by the doubts of the Kent MPs about the impact of any Channel fixed link on the economics of the coastal towns, especially the ferry ports, as well as environmental considerations.

Some pressed for increased infrastructure spending while Mr Peter Rees, Conservative MP for Dover and Deal and former Chief Secretary to the Treasury, raised the question of whether the town might be made an enterprise zone or a free port. These members were also worried about the speed with which the decision was being taken.

The Labour Party has taken a wait-and-see position, arguing that there is insufficient information available to make a judgment, hence there should be a full public inquiry. The Government has argued that this would involve delays which might kill the scheme. Labour's position partly reflects the divisions within its own ranks, with National Union of Railwaymen favouring a fixed rail link and the National Union of Seamen against the project, while a number of Scottish and north-western MPs are critical because they believe money and activity will be diverted from their regions. But most Labour, as well as Tory, MPs now favour a fixed link.

Peter Riddell

ASSESSMENT PROCESS

IN BRITAIN at least 50 senior civil servants will be directly involved in assessing the plans submitted by the four groups. They will be assisted by a number of private sector consultants such as J. Henry Schroder Wagg which have been appointed as financial advisers on the project.

A similar team of French officials has been established and the two groups will combine their findings in a joint report now being delivered to ministers.

The two governments expect to announce by the end of next month which, if any, of the schemes will go ahead.

The plan is to sign a treaty between the two countries by March with a Bill to be introduced in to the British Parliament by the spring.

This will be a hybrid Bill which allows individuals affected by the development to make their complaints to special parliamentary committees in the House of Lords and in the Commons. In addition the Bill will go through the normal legislative procedures.

There will be no public inquiry, the Government regarding the special machinery of the hybrid Bills as sufficient to consider complaints. It is expected that the Bill's passage will take about 12 months which would allow construction to start in summer 1987.

In France a Declaration d'Utilite Publique will have to be passed which will require a public inquiry. However, the French system of public inquiries is different to that in the UK. In France more emphasis is placed on assessing a scheme's impact and the grounds for compensation than on trying to decide whether a scheme should go ahead or not.

A party atmosphere prevails in Paris

The French display their strong support

MR JEAN AUROUX, the French Transport Minister, held a big party on October 31 in the gilded salons of his ministry on the Paris Left Bank to mark the official deadline for the submission of Channel fixed link projects.

The main competitors had come with colourful models of their rival schemes. Press and television turned out en masse as did all the top officials of the competing projects. There was also plenty of whisky and the inevitable petits fours served at all formal occasions in France.

At exactly the same time, the rival projects were also being submitted in London. But the contrast could not have been greater. In London, the whole affair was played down and there was none of the party atmosphere of Paris.

This contrast is an eloquent reflection of the differences between Paris and London in their respective approach to the fixed link project, and it underlines the huge support it has had from the beginning in France.

There is no doubt that France has felt it has always been a far keener supporter of the fixed-link than Britain. Indeed, the French government has shown throughout the discussions with its UK counterpart considerable flexibility and willingness to compromise in an effort to ensure that the project goes ahead.

Paris would have been favourable to some element of state intervention in the financing of the venture but quickly dropped any idea of state financial participation in the face of the tough opposition of the British government against any state financing or financial guarantees. Diplomats and government officials in Paris say that the Socialist government has fully accepted the private financing principle of the project.

"This is no longer an issue and hasn't been one for a long time," says one French official closely involved in the fixed-link discussions. "The French Government now believes that financing will be readily available from private sources. Technical and traffic considerations are likely to pose greater problems at this stage."

Having accepted the idea that the fixed-link would be a private sector project, the French Government has always made clear that it wanted to see a rail element in whatever link was finally chosen. Of all the issues involved this is perhaps the most important from the French point of view.

France sees the fixed-link as a major opportunity to develop its high-speed TGV train network *(Train a Grande Vitesse)*. Although the TGV has turned into a spectacular technical success and the Paris-Lyon-Marseilles TGV link has made a big dent in domestic flight revenues, the French Government and railways have been looking for new opportunities to consolidate the concept.

Lobbying

A TGV route is now being built between Paris and the west of the country and the Government is lobbying for the construction of a new eastern service linking Paris and Brussels and going on to Cologne in West Germany.

The Channel fixed-link would not only provide the opportunity for a high-speed train service eventually to London but provide a further argument for construction of the Brussels and Cologne line since it could include a branch going to Calais.

The French insistence on the rail content of any fixed-link project has been one of the key factors which the various promoters of the rival Channel projects have had to bear in mind. It has been no secret that the SNCF, the French state railways, has from the beginning preferred the twin-bore rail tunnel proposal of the Channel Tunnel Group/France Manche consortium because of its exclusively "rail character."

Euroroute, the bridge and tunnel solution and the main rival of the Channel Tunnel project, has mounted a major campaign to persuade the SNCF and British Rail of the merits of its proposal which now includes a separate rail tunnel. Euroroute argues this would give the railways an exclusive link of their own.

Apart from the railway issue, the French are not expected to differ from the British on the ultimate choice of project. French officials involved in the current review of rival projects said that they had been impressed by the "good and constructive spirit" of discussions between the two assessment panels on either side of the Channel.

In any event, France is anxious to avoid letting any obstacles come in the way of the project. The French government and the right-wing opposition parties concur in thinking that the timing is now favourable for the project to go ahead and unless a decision it taken rapidly, it could be buried again for decades.

Although France will have a general election next March, which the right-wing opposition is widely expected to win, the Channel link is not a political issue. There is an overwhelming consensus in France that it is a positive project which will not only represent one of history's grandest civil engineering feats and show up the best in European civil engineering capabilities, but it will also help consolidate the concept of European union.

"There is really no argument at the political level over the prospect in France as opposed to the UK where there are big differences," a British official remarks. The only opposition to the fixed-link has come from the town of Calais. But even then, Calais has been a lone voice in its own region of the Nord-Pas de Calais which itself is also a big supporter of the fixed-link.

For the French north, the project is seen as providing considerable economic benefits and new job opportunities. Unlike the British side of the Channel, the French northern regions are depressed and contrast sharply with, say, the county of Kent.

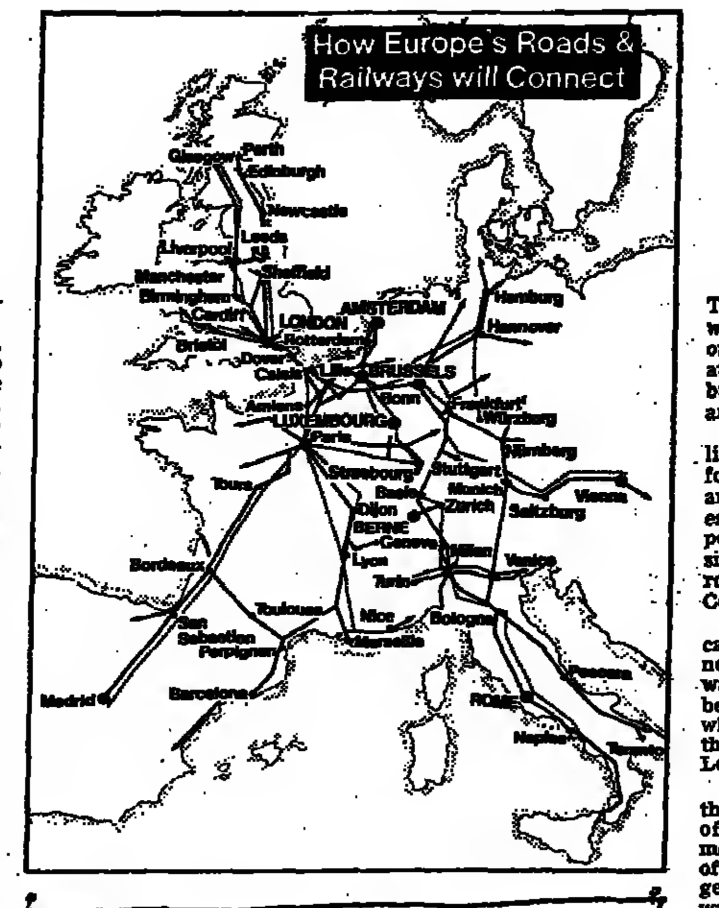
"Our regions are our depressed north while Kent is the equivalent of Britain's Cote d'Azur or Riviera," says one Channel project promoter.

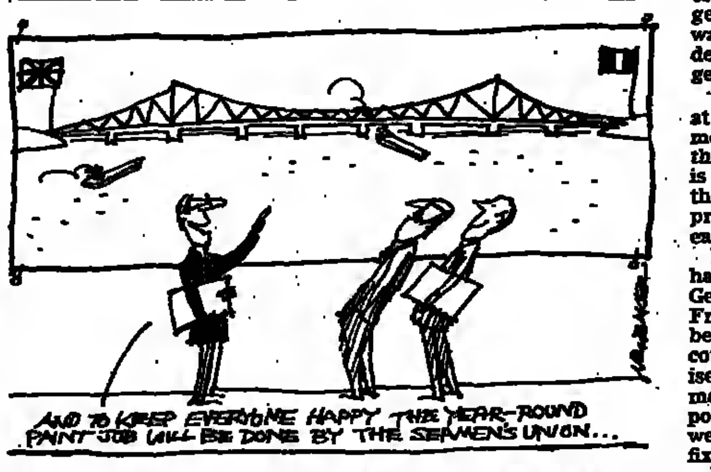
The economic gains which the fixed-link could generate have already been exploited by the Socialist government which sees the Channel project as a possible way of gaining badly needed extra votes in the north. In October the Government announced that it was setting up a working party to review the advantages the link could bring to the north as part of a new FFr 3bn ($385m) job and economic support package for the depressed industrial region around Lille and the Pas da Calais.

But beyond purely electoral political calculations, there is a genuine sentiment of support from both left and right for the fixed link. So much so that French officials often express worries that the British side is not as committed as France. As a result, the Mitterrand administration has repeatedly sought public assurances from the British Government of its commitment to the project and has tried to bind the UK to a strict timetable.

This finally came together at the Anglo-French summit in London last month, when France received both a formal new commitment of Britain's support of the project and a timetable binding the two countries to choose a winning project by this January. France wanted to ensure that final binding decisions are taken before the French general elections next March. This has now made the French more hopeful than ever before that the Channel fixed link — after more than a century of discussion and debate — will finally see the light of day.

Paul Betts





Significant implications for regional policy

A magnet for industry and commerce

THE FIXED LINK, if it is built, will have a substantial impact on jobs and the local economies at either end of the crossing—but what will it mean for other areas of both countries?

The construction of a fixed link has significant implications for regional policy. Industry and commerce will want to establish bases close to the portals of what will be the single most important trade route between Britain and the Continent.

It will act as a magnet for capital, job opportunities and new development in the same way that Heathrow Airport has been a magnet for companies which have established along the M4 motorway west of London.

This creates a dilemma for the British government. Its end of a fixed link will be in the more prosperous southern part of the country in an area which, generally, does not need, nor want, the kind of stimulus the development is bound to generate.

There must also be concern at the prospect of more employment opportunities fleeing to the south when regional policy is concentrated on bringing those self same jobs to depressed regions such as north-east England and Merseyside.

In this respect the French have the better end of it. Geography determines that the French end of a fixed link will be in the northern part of the country: an already industrialised region with high unemployment which has (the ferry ports apart) enthusiastically welcomed plans to build a fixed link.

Mr Pierre Mauroy, mayor of Lille and a former Prime Minister, describes the venture as one of the greatest projects in history which could turn the Nord-Pas de Calais region into the economic hub of Europe with spokes radiating out to Paris, Brussels, Cologne and across the Channel to London.

At the centre of these dreams are plans to extend France's high-speed rail network—based on the TGV train (Train a Grande Vitesse) which currently runs between Lyons and Paris — from Paris to Brussels and possibly on to Cologne. The prospect of running a spur to a fixed link to allow a modified TGV to travel to London would make these plans a virtual certainty to proceed.

The French are looking at other ways to stimulate the region's economy. It recently announced plans to establish a working party to review the advantages a fixed link could bring the north as part of a FFr 3bn ($385m) job and economic support package for the oppressed industry region around Lille and the Pas de Calais.

This could create additional problems for British regional policy. If investment, which could come to either end of the link, was opting for the French side because of incentives being offered, the British might have to consider offering similar inducements.

Much anger

The British end of any bridge or tunnel will be in Kent, the "Garden of England," and with a strong environmental and farming lobby which is totally opposed to the development. There is much anger that there will be no public inquiry and there are complaints that the project is being rushed through against the wishes of local people.

Support for the link tends to be muted. Kent county councillors, for example, have voted to support the development but in a rather back-handed way: not because they think it should happen but because they believe it will be built anyway, no matter what they say. They have also warned of job losses at companies which supply the cross-Channel ferry trade.

Dover, busiest of all the ferry ports, has warned that thousands in the town will be thrown out of work if a fixed link is built.

It fears that the spate of development likely to follow construction of a fixed link will bypass Dover — which will be to the east of the crossing while most of those using the link will approach from the west along the M20 motorway.

The pressures for new development will be strong. The construction of the M25 orbital motorway around London, which is almost completed, has already opened up this part of the South East England to the national motorway network.

Construction of a fixed link would provide an ever bigger incentive for companies trading heavily with the Continent to establish operations close to the M25 and M20 exits.

Five of Britain's biggest construction companies, Balfour Beatty, Costain, Tarmac, Taylor Woodrow and Wimpey have already established a joint property company to take advantage of development opportunities in Kent which should arise following the construction of a fixed link.

The five are also members of the Channel Tunnel Group, which proposes to construct a twin-bore rail tunnel under the Channel.

Councillors at Ashford in mid-Kent have voted to support the Channel Tunnel Group's plans. If the project goes ahead British Rail intends to redevelop and expand the town's rail station as a major interchange for passengers travelling to France.

There are also plans to site a heavy goods terminal on the outskirts of Ashford which would carry out customs documentation and other frontier formalities for lorries carrying freight to and from the Continent.

The Medway towns of Rochester, Chatham and Gillingham in north Kent may also benefit. They are not directly on the main route to the south east coast where the link will be built — but they are industrial areas with high unemployment with local authorities which are anxious to encourage new development — particularly since the closure of Chatham dockyard.

But while individual centres may have problems, such as the Medway Towns, the region as a whole is generally regarded as reasonably prosperous. If the link does create new employment opportunities it would be better for the Government if these would come elsewhere like North East England.

For the French the issues are more clear cut. The ferry ports such as Calais may not like the prospect of losing their traditional trade but many in the northern region of Nord-Pas de Calais approve wholeheartedly of the development.

"We have embarked on a kind of race to create employment," says Mr Daniel Percheron, a senator from Lens where 15 per cent of the working population is without a job.

A lot of people living around the decaying coalmines, struggling steel mines and tired textile companies of northern France are praying that a fixed link project does go ahead. There are also people in Kent praying that it does not.

Andrew Taylor

Need to conform to strict guidelines

An extensive list of requirements to be met

PROPOSALS TO build a fixed link across the Channel have had to conform to strict government guidelines covering such issues as emergency escape procedures, precautions against the spread of rabies, protection against terrorist attacks and which side of the road motorists should drive on if a road crossing is built.

The guidelines, published by the British and French governments last April, also lay down the financial requirements the schemes will have to satisfy.

All the projects must be funded entirely by the private sector, without the aid of state financial guarantess. "Subject to this," the guidelines say, "promoters will be free to decide their own commercial policy, tariffs and the type of service to be offered. They will be able to undertake the management and commercial operation of the link without government interference."

The promoters, in the event of predatory pricing or abuse of a monopoly position, will be expected to comply with national and EEC rules and legislation, particularly those affecting unfair competition.

The two governments will not take over the development if the promoters fail to complete construction or operate the link successfully, the 63-page report says.

It says that promoters would be required to remove at their own cost any half-finished structure in the Channel. On the other hand governments would be liable for compensation if they halted construction or operation of a fixed link for any other reason than defence or national security.

Traffic across the link, however, might be temporarily stopped, on government authority, without compensation to cope with an emergency such as a bad accident or dangerous traffic jam.

The guidelines say that tax arrangements should not discriminate in favour of, or against, competing forms of cross-Channel transport such as ferries. And promoters "should not assume that duty-free facilities will be available to users of the link."

Provision of duty-free facilities could create problems within the EEC given that these are not permitted at other frontiers in Europe. According to the guidelines, the laws of each country will apply up to the respective sides of a mutually agreed border on the link.

Since the report was published it has been decided that one-stop customs facilities will be provided at each end of the link. This means that people travelling to the Continent will only have to clear one set of frontier controls to be established at the British end. Passengers travelling to Britain will correspondingly clear customs in France.

In the event of a motorway link being built it has been decided that vehicles travelling from England to France will drive under British rules and keep to the left, while crossing the link, switching over to the right on arriving on the French shore. Motorists coming from France will drive according to French rules until reaching Britain.

Traffic travelling in opposite directions will be carefully segregated under the plans proposed by the three groups bidding to build road schemes.

Traffic signs will be in both English and French and comply with the normal European designs.

Reasonable return

No decision has been taken on the likely life of a concession to construct and operate a fixed link. The guidelines say this will depend on "the type of project selected and will be intended to be sufficient to allow debt to be repaid during the life of the concession and permit a return on equity that is reasonable taking account of the degree of risk."

EuroRoute, which proposes a road and rail scheme involving a combination of bridges, artificial islands and tunnels, is seeking a concession which it says should run for at least 50 years.

Much of the guidelines are devoted to setting out the detailed information and studies which the two governments require promoters to submit on the financial, economic, employment, technical, organisational, environmental and safety implications of their plans.

Each of the proposals must be accompanied by a detailed environmental study showing the likely impact on coastlines and local areas at either end of the link. These must, for example, show where spoil will be put, particularly if a tunnel is built.

There are sections in the guidelines covering the strict rules on safety precautions which the schemes will have to satisfy. These include measures to safeguard against terrorist attack, precautions to prevent the spread of rabies into Britain and adequate escape procedures in the event of fire or accident.

No scheme will be allowed to proceed unless the promoters can show that they have adequate insurance against accidents or injury.

Structures in the main shipping lanes will have to be capable of withstanding a collision from a fully-laden tanker travelling at 17 knots.

Most of the promoters are proposing to install sophisticated electronic surveillance equipment to monitor traffic flow, to assist emergency procedures if an accident occurs and combat possible terrorist attack.

Channel Tunnel Group, proposing a twin-bore rail tunnel, has been considering the possibility of installing heat-sensitive detectors as one means of identifying and controlling any (possibly rabies-carrying) animals which might be in its tunnel.

According to the guidelines report the fixed link must be capable of enduring for at least 120 years and promoters have been asked to submit reports on what impact the development may have on tides, currents and fishing grounds.

It says that road schemes must provide for at least two motorway lanes in each direction which should be designed for a minimum speed of 50 mph to keep traffic flowing—particularly in a road tunnel where a dangerous build-up of exhaust gases could occur.

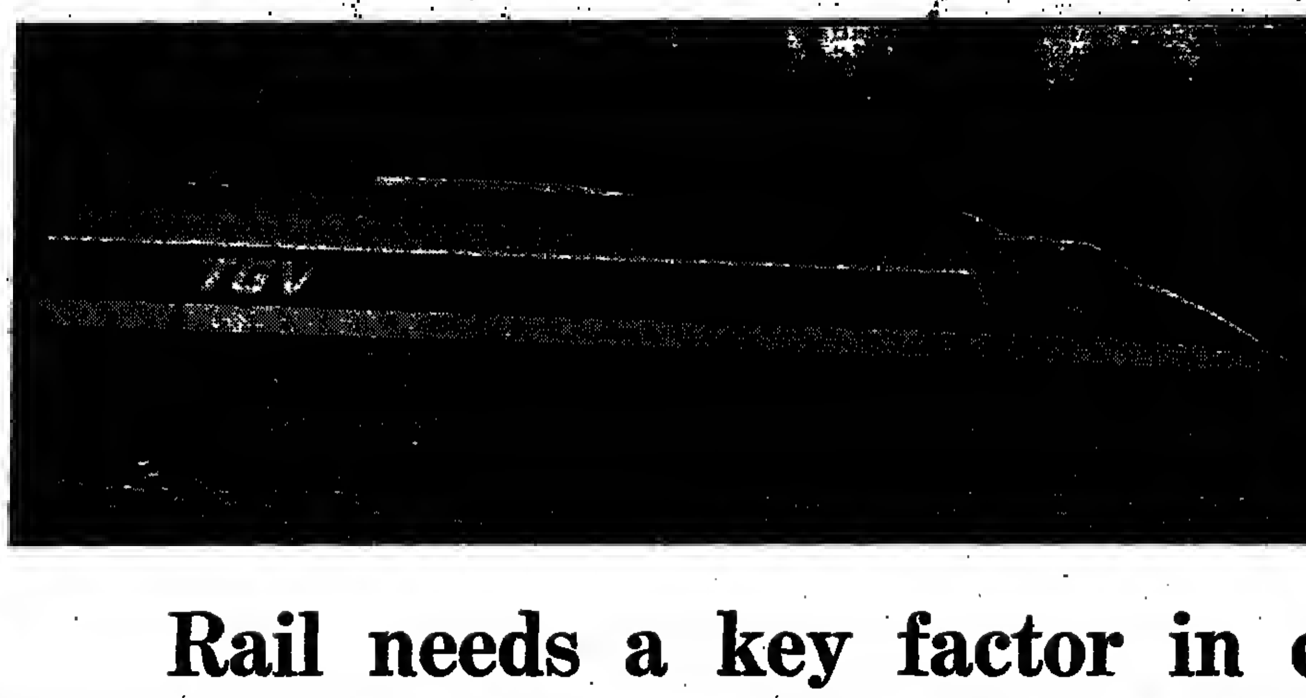
The two schemes which include road tunnels, proposed by EuroRoute and Channel Expressway, provide separate tunnels for traffic travelling in opposite directions. There are regular crossover points between them to allow vehicles to escape should one of the tunnels become blocked.

The guidelines insist that tunnels should comply with minimum standards for ventilation and be designed to enable people to reach the surface within 90 minutes of an accident or other emergency.

Promoters will also be expected to provide a mass of detail on emergency procedures, the fire-resistant materials used, measures taken to reduce noise pollution and special rules to deal with unusual or dangerous loads.

On top of this promoters have had to supply hundreds of pages of financial reports, traffic forecasts and economic studies. It is not surprising therefore that the submission to the two governments from just one of the four groups, Channel Tunnel Group, covered more than 2,900 pages of application and appendices, 120 drawings, individual annual reports and financial information from all the group's shareholders, plus an easy-to-read 20-page summary document.

Andrew Taylor



Jean Auroux, France's Transport Minister, and (left) the TGV. France looks to the link to extend the TGV network.

Rail needs a key factor in choice

THE ROLE of the British and French state-owned railways in a fixed link is a key factor in deciding which of the four schemes submitted, if any, should go ahead.

It was made very clear early in negotiations between the British and French governments and the groups proposing schemes that a rail crossing would have to be included in the development.

All four groups have included provisions for a rail tunnel but there are differences between individual designs and the terms and conditions which the groups are seeking from the railways.

For the French a rail crossing is extremely important to plans to extend their very successful high-speed rail network, based on the TGV train (Train a Grande Vitesse) to other European countries.

At present the TGV runs, on its specially-constructed track, between Lyons and Paris. Proposals to take the TGV on from Paris to Brussels and possibly Cologne are almost certain to go ahead if a fixed channel link is built.

The plan would be to build a spur to the link which would allow specially-modified TGV trains to travel from Paris to London in three hours although the very high speeds achieved on the Continent will not be possible in Britain since British Rail has no plans to invest in expensive TGV track.

Nonetheless BR will spend large sums on new facilities and rolling stock if a fixed link is approved.

Rail is much more widely used on the Continent to carry freight and a connection to the Continental network could provide a substantial boost for BR freight traffic. Differences in the size of British and Continental rolling stock mean that larger Continental trucks and passenger wagons would be unable to operate in the UK although British rolling stock would be able to operate on the Continent.

BR and SNCF (possibly together with Belgium Railways) will jointly develop special passenger and freight trains to accommodate a rail tunnel under the Channel.

These would be modified to use both the third rail power system adopted on Southern Region and the overhead wires used to power trains on the Continent.

Rolling stock

British Rail expect to spend about £200m in this country on new rolling stock as its share of the work. Total investment by BR would be about £390m.

Major items of expenditure will be on:

- £140m on a new dual voltage traction passenger fleet.
- £65m on freight rolling stock and locomotives.
- £50m to be spent on a new passenger terminal at the northern end of Waterloo Station in London to provide additional passenger facilities as well as customs and immigration controls.
- £12m to expand and improve Ashford Station in mid-Kent as an interchange for passengers travelling between Kent, the south east of England and the Continent.
- Other money would be spent on new track, improved signalling, extra sidings close to the fixed link and additional freight marshalling facilities in the London area.

British Rail is understood to have considered laying overhead wires from the coast to London but this would have cost an extra £100m. The Government has said that any investment by BR must show a 7 per cent net real rate of return.

Both BR and SNCF are expecting rail traffic to increase if a fixed link is built but the French are more optimistic about passenger and freight demand than is BR.

SNCF predicts that about 18m passengers a year will use the link when it opens compared with BR's forecast of about 11m.

The French would also prefer a rail crossing for BR and SNCF trains only. This has not ruled out a deal with Channel Tunnel Group which proposes a twin-bore rail to carry mainline trains and a privately-operated shuttle to transport cars, lorries and coaches under the Channel.

Indeed BR and SNCF are thought to favour Channel Tunnel Group's proposals as these do not include a road crossing which would compete with the railways for business.

Channel Tunnel Group's three rivals have also been seeking to negotiate agreements with the railways. Two of the groups, Euroroute and Chanel Expressway, have had to rearrange the design of their schemes in order to satisfy objections raised by the railways.

Channel Expressway which now proposes separate motorway and rail tunnels (it had proposed to run trains through the same tunnel as the roadway) also appears to be reaching an accord with the railways.

Its lower capital costs mean that Channel Expressway has been able to offer lower rates to BR and SNCF.

EuroRoute has had more problems in getting its proposals accepted. Its plan (at time of writing) is for initially a single-track rail tunnel to open at the same time as its road scheme, which involves a combination of bridges, artificial islands and a tunnel. A second rail tunnel would be built later.

The railways want a double track system, as would be provided by Channel Tunnel Group and Channel Expressway, to open at the same time as EuroRoute's road scheme.

EuroRoute, however, has now proposed several alternatives which look like overcoming the railways' objections and is poised to agree terms with both SNCF and BR.

Combination

One problem in negotiations which appears to have receded is the question of fixed rate charges which have been requested as part of separate deals being sought by EuroRoute and Channel Expressway.

BR had been concerned that the requests, if conceded, would flout government guidelines which insist there must be no state financial guaranteed payments to support any part of a new Channel crossing.

It now appears that fixed cost charges can be negotiated provided these do not form a significant part of any deal.

BR and SNCF have been negotiating jointly during the meetings with three main contenders. There are, however, individual differences in approach between the two railway boards; underlined by the more optimistic view on passenger demand by SNCF.

However, the gap should not be viewed in terms of support or lack of support for particular schemes. It reflects more the differences in attitude between two governments with on the one hand the very pro-rail approach of French administrations compared with the far less enthusiastic response of successive British governments to rail investment.

Indeed, there are doubts whether the proposed level of investment in rail infrastructure between the coast and London would be able to cope with the increase in freight and passenger demand forecast by SNCF by the turn of the century.

What has brought BR and SNCF together is their mutual desire to have a Channel rail crossing and neither wants to do anything which might impede the prospects for trains running direct from London to Paris.

Mr David Kerby, joint managing director of BR, says the aim of the two railways is to conclude commercial agreements with all of the main contenders—to leave the railways in a strong position no matter which scheme is chosen.

Andrew Taylor

CHANNEL EXPRESSWAY

- The most recent poll shows that almost 50% of people who want a fixed-link **want Channel Expressway's drive through road and rail tunnels.** MORI
- **Channel Expressway is a drive through tunnel** for its entire length; this means that it can't be closed by bad weather, nor will users suffer delays from loading their vehicles onto and off train shuttles, or have to wait for the next train departure.
- **Channel Expressway is also a rail tunnel** – London to Paris in 3¼ hours by high speed train. Separate tunnels will be provided for the railways' exclusive use.
- **Channel Expressway is the cheapest proposal** so it will have the **lowest tolls for users.** Tolls will be reduced as the tunnel debt is paid off. The lower the debt, the quicker the reduction in tolls.
- The construction and operation of Channel Expressway will provide an enormous challenge for British industry and create thousands of jobs. The 2,500 Sealink British Ferries staff now engaged in the short-sea Anglo-French ferry services will be offered employment in Channel Expressway's operations.
- **'Channel Expressway's environmental impact will be the least damaging of the four schemes** – it would appear to offer the most convenient service to the user.' KENT COUNCIL'S PLANNING OFFICER.
- 'Channel Expressway has the double attraction of a drive through service and a relatively low cost.' LEADING TRANSPORT ANALYST, PHILLIPS AND DREW.
- **Channel Expressway will have enough capacity for road and rail traffic for at least 50 years.**

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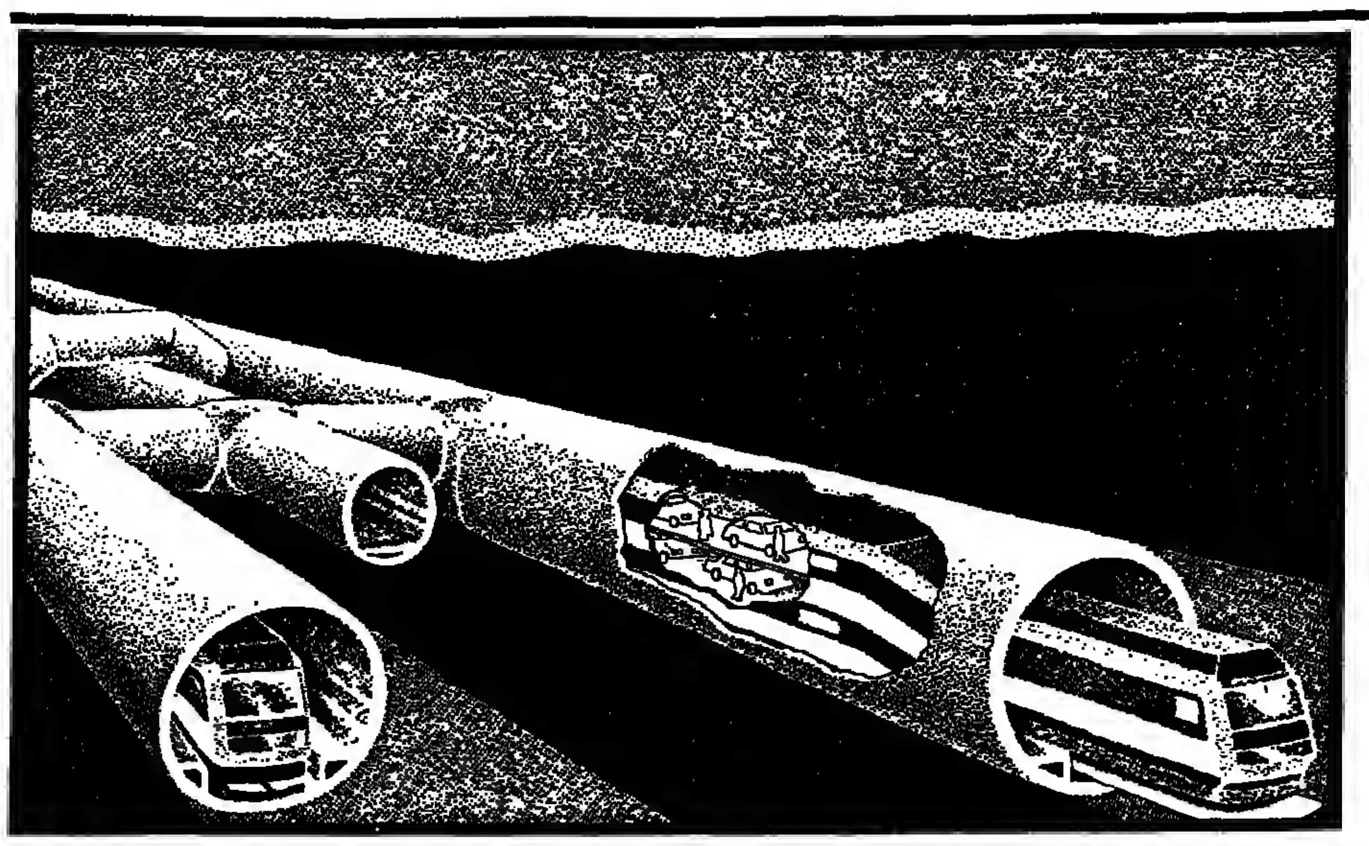


Sir Nicholas Henderson. Impressive backing from banks and construction companies on both sides of the Channel

CHANNEL TUNNEL GROUP: £2.6bn scheme which will offer mainline rail service and a shuttle for motorists through twin tunnels

Strongly-backed proposal using tried techniques

CHANNEL TUNNEL Group's proposal to build e twin-bore rail tunnel under the sea is the bookmakers' favourite and generally regarded as the scheme to beat.

Channel Tunnel Group boasts an impressive list of Anglo-French sponsors and has probably done more than any group in winning the support of international bankers and investment institutions.

The edvantages of its proposal are thet the scheme is cheaper than at least two of its rivals, and the technology of boring tunnels — particularly through the materials and geological structures thet exist for most of the way under the Channel—is generally regarded as safer than some of the more adventurous techniques end schemes which have been proposed.

The disadvantage is thet the tunnel will not allow motorists to drive across: vehicles will be shuttled through on specially-constructed privately-operated trains. There bas also been some concern that the scheme will be unable to accommodate peak time shuttle demand and all the growth in mainline rail traffic forecast by SNCF, the French state-owned railway.

The promoters believe, however, that the tunnel will have sufficient capacity to cope with both shuttle and mainline demands and that its advantages of cost and simplicity of building ontweigh the disadvantages of not being able to offer the flexibility of a drive-across scheme.

They stress that every independent inquiry commissioned by government since the 1950s has recommended a bored tunnel as the best solution. This includes an independent inquiry by British and French banks whicb published its findings last vear. Two of those banks, National Westminster and Midland, bave subsequently joined the Channel Tunnel Group consortium.

Shuttle demand

Other British shareboiders include construction companies: Balfour Beatty, Costain, Tarmac, Taylor Woodrow and Wimpey.

French sbareholders also include an impressive list of construction companies and banks including: Banque Nationale de Paris, Credit Lyonnais, Bouygues, Dumez, Societe Auxiliaire d'Entreprises, Societe Generale d'Entreprises and Spie Batignolles.

The cost of the scheme has been estimated by the promoters at ebont £2.6bn at 1985 prices. This rises to more than £5bn after allowing for interest charges on development loans and provisions of £1bn to cover possible cost overrun.

More than 30 international banks bave given provisional commitments to provide more than £4bn in development loans. Commitment fees will be payable by the consortium to the banks as soon as (or if) this scheme is given the go-ahead from the British and Frencb governments in January. The offers are conditional upon the group raising at least £650m in equity and satisfying the terms of a preliminary information memorandum which has been issued to potential investors.

Plans are already in hand to raise ebout £1bn in equity which institutions in London bave said they would be prepared to underwrite in full.

The proposal, however, is to raise ebout £250m together in Japan end the US where Nomura and Salomon Bros have been appointed to handle the share sale. Britain and France are expected to raise about £325m each, leaving £100m to be raised in the rest of Europe. The consortium expects to seek e full listing on the London and Peris stock exchanges in mid-1987.

The banks which bave provisionally committed development loans include more than e dozen Jepanese banks providing more than £1.6bn. Amounts committed hy individual banks incinde: £200m each from National Westminster, Credit Lyonnais, Banque Nationale de Paris, Banque Indosuez and Credit Agricole.

Commitments of £160m have been mede by Arab Banking

Jean-Paul Parayre, president of France Manche, the French constituent of the Channel Tunnel Group

Corporation, Banca Commerciale Italiana, Bank of Tokyo, Commerzbank, Deutsche Bank, Industrial Bank of Japan, Sanwe Bank, Security Pacific, Tokai Bank and Union Bank of Switzerland.

Commitments of £120m bave been made by Dai-Ichi Kangyo Bank, Daiwa Bank, Fuji Bank, Mitsubishi Bank, Mitsui Bank and Societe Generale de Banque.

There have been commitments of £80m from Den Norske Creditbank, Dresdner Bank, Mitsubishi Trust and Banking Corporation, Saitama Bank and Taiyo Kobe Bank.

The Banque Internationale a Luxembourg bas pledged £50m and Banque Internationale d'Afrique Occidentale and Union do Banque Arabes et Francaises have both pledged £40m.

If all goes well the consortium plans to complete the main tunnels by spring 1991. Fitting out is due to be finished in autumn 1992 when commissioning of the shuttle railway system will begin, with the tunnel due to be opened and operations start in spring 1993.

The plans call for twin rail tunnels, connected by a third central service tunnel. These will be bored at an average depth of 40 metres under the sea bed. Each of the main tunnels will be 7.3 metres in diameter and just under 50km in length, of which 37km will be under the sea, and will carry a single rail track in each direction.

The service tunnel which will provide ventiletion will be linked to the main tunnels by galleries at 375 metre intervals. There will also be regular crossover points between the two main tunnels to permit routine maintenance and to allow passengers to escape and emergencies to be dealt with should one tunnel become blocked.

The rail shuttles will be designed to handle up to 4,000 vehicles an hour travelling in each direction with trains at peak times leaving at three-minute intervals. The promoters expect, however, that initial demand will not average much more than 1,000 vehicles an hour in each direction.

Construction will be carried out by a joint venture of two groups of contractors with six tunnelling machines on the British side and six on the French. It will create more than 2,000 civil engineering jobs at each end of the tunnel during peak construction period.

The provisional estimate of tunnelling speed is between 400 metres and 500 metres per month on the French side and 1,000 metres a month in the better ground on the British side.

About 6m cubic metres of spoil are likely to be produced of which 4m cubic metres will be disposed of in the UK. Most of this will be used to level the site planned for a new rail terminal at the UK end of the tunnel and to reclaim land and stablise sea cliffs under which the railway will run.

Two new terminals are planned: near Frethun, south west of Calais in North Eastern France and Cheriton, north west of Folkestone in South East England.

Cars, lorries or coaches travelling to Britain or the Continent will load their vehicles on to the specially-designed roll-on roll-off shuttles at the terminals.

There will be double-deck shuttles for private vehicles less than 6ft high. The shuttles will be air-conditioned and the consortium's brochure shows passengers travelling with their cars but with room to walk about, and refreshment dispensers and television screens displaying traffic information.

The terminals will also provide toll booths as well as one-stop customs and immigration facilities. Shops and other passenger services will also be provided on site as well as duty-free facilities if these are permitted.

Duty-free shopping

Journey times between the terminals at Cheriton and Frethun are estimated at 30 minutes at a maximum speed of 160 kmh (100 mph) — or 45 minutes if loading and unloading of vehicles is taken into account and 1 hour 10 minutes if time is allowed for ticket purchase, customs, immigration and any duty-free shopping.

Pricing is difficult to determine with accuracy. The scheme will not open for another eight years and nobody knows what the ferries will be charging then. However, the promoters are working on the basis that at 1985 prices fares may be about £19.80 per car passenger or £5.70 per coach passenger.

Interspersed between the shuttle trains will be mainline rail traffic. British Rail is planning a new terminal at Waterloo with Ashford station in mid-Kent expanded to become an interchange for passengers travelling to the Continent from other parts of Britain.

SNCF forecasts suggest that up to 10 mainline trains an hour in each direction could use the fixed link at peak times and this could create capacity problems. It would prefer a rail link for BR and SNCF trains only.

It also has reservations about some of the other schemes, and if it felt that Channel Tunnel Group was the only realistic prospect of getting a fixed link, would not stand in the way of the scheme getting government approval.

For the French the carrot is being ehle eventually to operate their TGV high-speed train (Train a Grande Vitesse) from Paris to London even if the track between the English coast and London will not permit the high speeds achieved in France.

Andrew Taylor

EUROBRIDGE: A 12-lane motorway bridge and single-bore rail tunnel

Pitched to match traffic growth

EUROBRIDGE PLANS to make revolutionary use of established materials to build a record-hreaking 12-lane motorway hridge across the Channel. If huilt the bridge'e spans would be three times longer than anything attempted before.

Eurohridge has produced a string of consultants' reports, backed by leading engineers, to support its claims that the bridge can be built and will be safe.

However, the scheme bas struggled to achieve credibility. A recent report by an all-party House of Commons transport committee, also backed by the edvice of an eminent engineer, said that the technology to be used to build the bridge was not sufficiently proven for it to support the proposals.

The project has also suffered because of the lack of a clear corporate identity despite the active support of such companies like John Laing and Brown and Root (construction companies) and ICI Fibres, part of the ICI chemicals group.

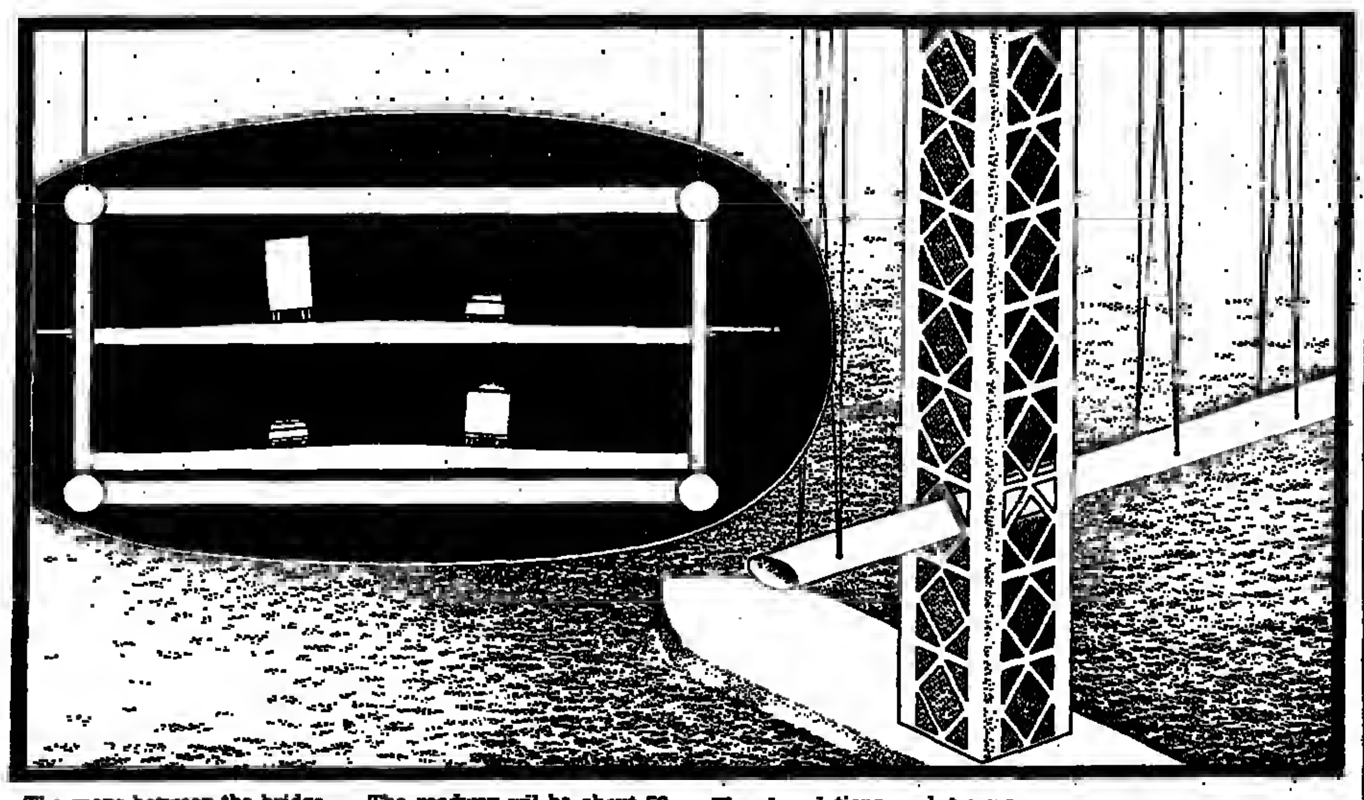
Attempts have been made to formalise arrangements but the image remains of a loose co-operative of like-minded people rather than a major corporate body with a clearly-defined financial structure complete with investing shareholders.

There are also grave reservations about Eurobridge's ability to reise the necessary private finaoce despite the group's confidence that the money will be availeble if its proposal is chosen.

Eurobridge says its strongest appeal is that it is the only road scheme which provides the capacity to cope with the increase in traffic likely to arise during the life of a concession which could run for np to 50 years. The crossing itself must be huilt to last 120 years, according to the British and French Governments.

"The two other road scbemes provide for only two lanes of traffic in each direction, compared with our six lanes in each direction. Channel Tunnel Group's scbeme does not even provide for a road crossing. Our rivals are providing 20th century solutions to what will be e 21st century problem," Eurobridge says.

Instead, Eurobridge proposes to build a seven-span suspension bridge. The bridge piers, six of them in the Channel and two onsbore, would consist of two towers whicb will stand 400 metres above high water.



The spans between the bridge piers would be of about 4.5 km, three times the length of the longest suspension bridge et present open: the Humber Bridge which has a 1.4 km span.

Eurohridge says that the record-breaking spans are possible by using cables made of parafil, a composite material developed by ICI and Dupont, which has more than six times the strength of steel for the same weight.

The 12-lane motorway — two decks of six lanes eech—would be contained in an aluminium sheath on a steel frame. "By enclosing the roadways the bridge will be eble to remain open in the most severe weather conditions," Eurobridge says.

Tbere will be slip road road interchanges between the two levels of motorway. Each deck will bave hard shoulders and raised walkways on eech side of the road.

Eurobridge is also considering using estercrete, e polyester-reinforced cement, which it says bas been successfully tested by the UK Transport Department, to provide a road surface "approximately one-quarter of the thickness of traditional materials."

The roadway wil be about 70 metres above sea level while most of the bridge piers in the Channel will either be located in shallower inshore shipping lanes or in the central reservation between the two main shipping lanes.

Eurobridge says that because of the strategic placing of the bridge piers it will need to seek consent from the International Maritime Organisation for only one of the piers. Informal discussions have taken place with the IMO

The bridge piers would be protected from collision by buge floating fenders which the consortium says would be capahle of withstanding impact from e 250,000-ton vessel travelling at up to 17 knots.

The piers will also be equipped with "acoustic, laser and electronic locating and warning devices," says the group. High-speed launches would be kept at the piers to intercept vessels.

Tbe height of the road above the water will allow the largest ships to pass easily underneath. Drivers, because the roadway will be enclosed, should suffer no psychological problems from being so high, the promoters say.

The foundations and towers for the bridge would be prefabricated on shore before being towed into position and assembled, incorporating techniques used in the development of North Sea oil and gas fields.

In addition, Eurobridge proposes to build a single-bore rail tunnel with a diameter of 6 metres.

Total capital cost of the road and rail crossings has been estimated by the promoters at £5.24bn at 1986 prices. After allowing for finance costs and inflation, the total sum required by the group rises to more than £9bn.

Eurobridge says: "Bank finance may be expected to account for the major proportion of the debt required in the construction phase, with the prospect of refinancing by additional equity and bonds towards the end of that pbase."

It says that a number of banks have expressed "serious interest" in financing the project. However, there is no evidence of any wide-scale support for the venture either from the financial markets or from the two governments.

A. T.

Lord Layton, chairman of Eurobridge, an ambitious scheme stretching bridge technology to new limits

A fifth option is to rely on improved sea crossings

Ferry companies' fear is unfair competition

THERE IS a fifth option available to the British and French governments, which is to reject all plans to build a fixed link and rely on an improved sea ferry service for Channel crossings.

The two governments were asked to consider seriously this option when the four fixed-link schemes were submitted at the end of October.

The promoter of the fifth option is Flexilink, a group of cross-Channel ferry operators and port interests which stands to lose heavily if a new crossing is constructed.

Flexilink says it is not afraid of fair competition from a fixed link. Improvements in port installations and ferry design mean that ferry prices could fall by 40 per cent over the next 10 years.

A fixed link saddled with large development loans would find it extremely difficult to compete on price, if competition is fair, the organisation says.

On journey times Flexilink says: "EuroRoute and Channel Tunnel Group, two of the main contenders to build the link, claim about a 30-minute crossing time for their proposals.

"This compares with an average journey time for the existing Hovercraft crossing between Dover and Calais of about 35 minntes. This is broadly comparable with the times suggested by fixed link promoters yet Hovercraft's share of total traffic has remained relatively modest despite the fact Hovercraft operators have not charged a significant premium for their service."

It argues that speed of crossing is not the only factor to be considered. Many people enjoy the sea crossing on board a ferry and the amenities provided on board.

If the ferries believe they can compete with the fixed link on price and service why should they fcar its construction?

Flexilink believes that competition with a road and rail crossing will not be fair. It argues with some force that to survive e fixed link would have to lake a significant proportion of the present ferry business.

If this business was unforthcoming it would heve to cut its prices to the point at which the ferries' own future would be jeopardised.

Mr Jonathan Sloggett, chairman of Flexilink and managing director of Dover Harbour Board, says: "It is inconceivable that the banks backing the fixed link would let it fail. If the going got tough they would surely re-finance debt on terms which would allow the link to assert its superiority over the ferry companies which would find it difficult to survive in that climete."

The other fear of the ferry companies is that the two governments would have to take over the crossing if it did fail. The lower operating costs of a bridge or tunnel, once debts were refinanced, would give ferries very little chance of survival.

At the very least tho construction of a fixed link would destroy the commercial viability of all but the ferries on the Dover-Calais route, says Flexilink.

Reduced sailings

In reality the ferry companies believe they would lose even the busy Dover-Calais crossing, particularly if e high cost project like EuroRoute's road and rail scheme needed to generate the extra custom to pay for its development.

Mr James Sherwood, chairman of Sea Containers, the Bermuda-based shipping group, which is proposing to build separate road and rail tunnels under the Channel, is also a member of Flexilink.

Mr Sherwood in evidence last month to the all party House of Commons transport committee, said that he would prefer it if no fixed link was built but if one was to be constructed he wanted it to be his scheme. He warned that there would be no future for ferries on the short sea routes to France and Belgium if a link was constructed.

He told the committee that it was ridiculous to suggest that the ferries could survive with even 30 per cent of the traffic on the busy short sea routes.

"This is rubbish, because if you think about how e ferry company operates, it operates to make money; it has to operate full ships. It cannot succeed by running ships which are only 30 per cent loaded.

"To take that 30 per cent of traffic and put it into full ships you have to reduce the number of sailings, perhaps to one every six hours, and the moment you do thet you are threatening the ferry business again, because nobody will wait six hours for a ship."

Sea Containers has warned that it will close down its short sea routes immedietely a fixed link is opened. All 2,600 workers employed by Sea Containers on the routes would be made redundant unless the group itself won the mandate to build the crossing and the jobs could be transferred.

Flexilink says that if the crossing is built np, to 40,000 jobs et ports and on ferries—60 per cent of them in the UK—could be lost, far more than the link itself would create.

The estimate is contained in the submission made by the ferry companies to government at the end of October. It said that nearly two thirds of those employed on cross-Channel ferries came from the UK which would therefore bear the brunt of the job losses.

The number of jobs lost would depend on which scheme was built. Flexilink says for example, the Channel Tunnel Group proposals for a twin-bore rail tunnel would cause fewer job losses than would EuroRoute's more ambitious road and rail scheme

European Ferires, which runs the Townsend Thoresen line, says that longer-haul routes to the Continent would also be threatened

It says that many of these routes from regional ports are only marginally profitable.

European Ferries is currently negotiating to buy two new cross-Channel ferries for £70m which would be the laregst vessels so far used on the Dover-Calais routes. It is ships like these which the ferry companies hope will give a fixed link e run for its money.

The ferry companies argue that new improved ships and better port facilities at Dover and Calais can meet the demand of cross-Channel trade in the foreseeable future.

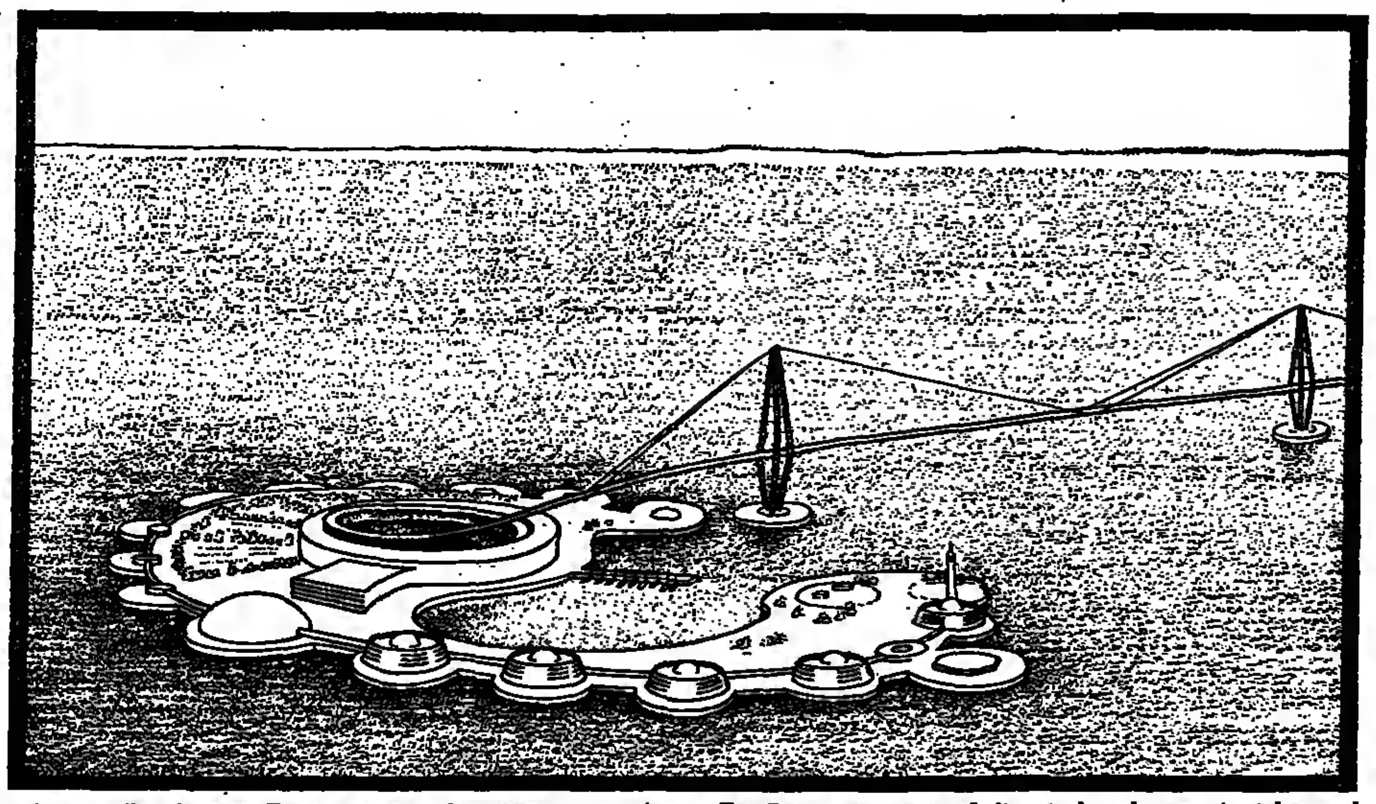
They claim that a fixed link will be expensive, unnecessary, will drive ferry companies away and will therefore rednce competition and not increase it.

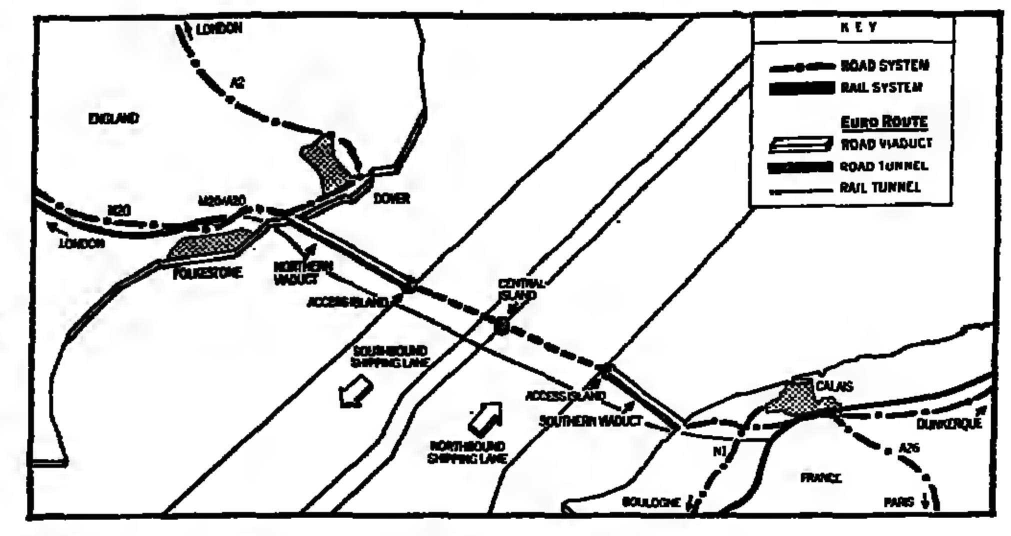
They continue to press their case but, like Mr Sherwood of See Containers, they believe that the decision to build e fixed link bas, in practice, already been made.

A. T.

EUROROUTE: An adventurous £5bn scheme involving a combination of tunnels and bridges and catering for road and rail traffic.

Imaginative scheme that will provide up to 75,000 jobs





SEVERAL nationalised industries and a string of soma of the best-known corporate names in Britain and France are promoting EuroRoute's plans to cross the Channel by a combination of bridges and tunnels.

It is a bold and imaginative scheme which the Anglo-Frencb promoters claim will sustain up to 75,000 jobs during the peak *construction period*. The disadvantage are its high cost and sdventurous nature, which may not appeal to more conservative civil servants, financiers and politicians.

The proposals involve road bridges extending 8.5 km from the English coast and 7 km from France. These would lead to two artificial islands where the road spirals down to 30 metres below sea level to a 21 km-long submerged tube road tunnel which *connects* the *two* islands.

A third ventilation island built in mid-Channel would prevent a dsngerous build-up of exhaust gases in the road tunnel.

The consortium bas also submitted plans to construct a rail tunnel under the Channel. It has finally opted for a bored tunnel which will provide, initially, single-track working only. A second track would be provided later, EuroRonte says, depending upon negotiations with British Rail and SNCF.

The combined cost of the road and rail scheme has been estimated by EuroRoute as just under £5bn at 1985 prices. This rises to more than £9bn after allowing for inflation, interest charges and provisions to cover possible cost overrun.

Members of tbe EuroRoute consortium ioclude on tha British side: Associated British Ports, Barclays Bank, Britisb Sbipbuilders, British Steel, British Telecom, General Electric Company, Jobn Howard, Kleinwort Benson and Trafalgar House.

French partners include: Althom, Banqua Parihas, Compagnie General d'Electricite, GTM Entrepose, Societe Generale and Usinor.

To pay for just the road scheme, the shareholders plan to raise £6bn in development loans and £1.2bn in equity from loternational banks and financial institutions.

Bank loans of £2bn will be raised in Britain and France where Barclays, Banque Paribas and Societe Generale have provisionally agreed to provida £200m each.

In addition, about a dozen banks from West Germany, Switzerland, Holland, Belgium Japan and the US have said they would be prepared to act as lead managers for the £4bn of development loans EuroRoute intends to raise outsida Britain and France. Each bank is provisionally committed to contribute *at least £100m of its own* money.

EuroRoute plans to raise the equity for the road scheme in three stages:

● £11m provided by the founding shareholders (GEC's contribution, for example, is £250,000) to cover initial costs until the two governments announce their decision in mid-January.

● £50m to pay for work while treaties and legislation go through. Of this £12.5m will come from 32 UK institutions, mostly insurance companies; £12.5m from the UK founding shareholders; and £25m which will be underwritten by the French shareholders.

● Two separate sums of £825m to be raised in mid-1987, primarily from tha London and Paris stock exchanges. The issue would involve four timas as much convertible loan stock as straightforward equity and would also include revenue warrants.

Bond markets

In the latter stages of construction EuroRoute may use international bond markets to raise funds. Goldman Sachs and Shearson Lehman in tha US, Deutsche Bank and Swiss Bank Corporation International in Europe and Daiwa Securities of Japan have been appointed to assist with bond and equity issues.

Kleinwort Benson, the merchant bank, and stockbrokers Cazenove are advising the consortium in the UK.

EuroRoute says one of its strongest appeals to government will be the large number of jobs it will create during construction in areas of high unemployment such as North East England and in Scotland. France similarly will be able to cbannel work to areas of high unemployment.

The flexibility of the schema to provide work bundreds of miles away from where the link will be huilt is possible because many of its components — the bridge plers, the artificial islands and sections of the road tunnel — would be prefabricated at steelworks and shipyards in Britain and France before being towed into place, assembled and finished.

A number of potential suppliers in Britain and France have been identified for a shopping list which includes: two concrete central cores for the artificial Islands, each weighing about 500,000 tonnes; 31 steel cable hridge sections with 500m spans, 84 twin-bore 250mm long steel and concrete tube road tunnel sections, 31 sets of hridge foundations and 36 protective concrete caisoons for the islands.

Each of the two main artificial islands would be 700m long and 500m wide and capable of housing shops, hotels and parking for up to 2,000 vehicles. There are also plans to use the islands' harbour facilities — valuable during construction and assembly — for yachting marinas.

Construction will rely beavily on techniques used during the successful development of North Sea oll and gas fields, says Sir Nigel Broackes, chairman of the British arm of EuroRoute and chairman of Trafalgar House, the construction, property, hotels and shipping group.

The main terminals to connect with the bridge and tunnel road crossing will be et Farthingloe, just west of Dover, on the British side and 5 km Inland from Sangatte on the Frencb side. These will provide toll booths and one-stop customs and immigration facilities: once drivers bave cleared one end of the bridge there will be no need to repeat border cbecks at tbe other.

Motorway services, fual, refreshments and parking would also be provided at each end of the road link. Trusthouse Forte has been appointed to advise on passenger service facilities.

Vehicles using the road hridge would travel 56 m above sea level on the hridges before spiralling down inside the islands to the road tunnels. Wind deflectors positioned at the hridge sides would protect traffic but it is expected that very high winds will mean that the road will be closed to higb sided vehicles for periods during very bad weather.

Two lanes of traffic would travel in each direction, widening to three *lanes* during the descent to the road tunnel. A wide hard shoulder enables vehicles to pull off the road at any stage during tha crossing. There would also he emergency crossover points between the two road tunnels in the event of one becoming hlocked.

Speed limits proposed hy EuroRoute are 100 km per bour on the road bridges, 50 km an hour on the islands, and 80 km per bour in the tunnels. This, says the consortium, should enahle drivers to travel the 41 km from coast to coast in ahout 30 minutes.

Sir Nigel Broackes, chairman *of the British arm of* EuroRonte, and chairman of Trafalgar House.

Maximum capacity of lhe motorway link is about 3.000 vehicles an hour in each direction although EuroRonte's revenne forecasts assume only 20 per cent ntilisation — about 4.5m vehicles a year, during the early years. Peak hour traffic in the summer is unlikely to approach capacity levels until well into the 21st century the consortium says.

Tbe costs to drivers are hard to determine for a scheme that will not open until 1993, hut *provisionally* the *consortium has* done its sums on the basis of £65 for a family car with four passengers travelling one way from Britain to Frence.

It stresses that a drive-across scbeme commands more popular support and is therefore a better solution than the twin-hore rail tunnel proposed by its strongest competitor, the Channel Tunnel Group.

There bave been doubts wbether a rail crossing, given that lt will be competing for husiness with a road link, would generate sufficient revenue to justify the Initial investment. It is for this reason that EuroRoute has been trying to arrange traffic guarantees.

EuroRoule says it bas worked bard to resolve doubts about lts rail scbeme. It says that fears about lts commitment to building the rail tunnel are misplaced. If it is to succeed it must also convince the successors that the risks and costs involved in lts project are not too high.

Andrew Taylor

House of Commons transport committee split on which scheme is best.

Predatory pricing risk worries MPs

THE first opportunity British MPs bave had to vote on the merits of the four conlending schemes *occurred two weeks ago* and produced the narrowest of majorities ln favour of Cbannel Tunnel Group's plans to construct a twin-bore rail tunnel under the Channel.

The vote taken by the all-party House of Commons Transport Committee underlines the wide differences in opinion, not just over the merits of the four scbemes, but over whether there should be a fixed link at all.

The committee, wbich published its report on the Channel link on December 5, readily admits that some of its members "see no economic or social necessity for such a link."

The decision to back Channel Tunnel Group's plans was carried only on the casting vota of the committee's chairman, Mr Gordon Bagier, Labour MP for Sunderland Soutb.

Almost as many MPs wanted to support EuroRouta's plans for a road and rail scbeme involving a combination of bridges, artificial islands and tunnels.

A motion that no fixed link be built was defeated despite the reservetions *of* some MPs sbout tbe need for tbe scbeme and whether it would improve services to customers.

The two remaining schemes, from Cbannel Expressway and Eurobridge were rejected by the committee, which questioned wbether the building methods and tecbnologies to be used on these schemes were sufficiently proven to allow them to go ahead.

Channel Expressway is proposing separate road and rail tunnels while Eurobridge wants to build a road bridge with 5km spans and a separate rail tunnel.

The committee is concerned that traffic restrictions might heve to he made on Channel Expressway's road tunnel if it were to meet stringent requirements on ventilation established in guidelines published by the British and French governments last April. It is also concerned that building costs qnoted by Channel Expressway are over-optimistic.

The committee is worried too about Eurobridge's plans to use cables made of Parafil, a composite material developed by ICI, to build a suspension hridge with spans more than *three times as* long as anything attempted before.

It therefore recommends "that if the governments decide to go ahead with a fixed link, their choice *should lie* with the Channel Tunnel Group. Only if the governments consider a fixed road link to be *indispensible should the choice* fall on EuroRoute."

Channel Tunnel Group's advantages, the committee says, are that it was much cheaper than EuroRoute; the plans involve proven technology (tunnel boring) and therefore the scheme is more likely to be finished on time and in budget.

Channel Tunnel Group's rail-only proposal was also likely to bave a smaller impact on local environments and infrastructure and would take a smaller amount of traffic away from the ferry companies, the committee says.

It is tha *committee's views* on the various proposals which have drawn most comment hut the lack of a clear majority dilutes some of the infinence *this* decision might bave bad on the more important decision to be taken by the British and French governments in the next *few* weeks.

Tbe transport committee, bowever, proposes a number of other recommendations wbicb are worth more of an airing than they have been given previously.

The committee, *for* example, recommends that the widesl possible discretion should be used to hear all members of the public who want to make objections to the link during *the committee* stage of the hybrid Bill which is to be introduced in Parliament once a treaty with France is agreed.

However, the committee has agreed with the Government that a public inquiry is not needed. It says the concept of a fixed link is not new and *various* proposals have been widely discussed over many years.

Other recommendations in *the report include:*

● The publication of a White Paper as soon as a scheme is chosen;

● Closer examination of promoters' claims on cost, construction and traffic and revenue forecasts which may give the appearance not so mucb of objective analysis as of shop windows in which the better to display the promoters' various schemes;

● Detailed studies of the environmental impact claims made by all the promoters and close monitoring of the effect on local areas during construction;

● Closer examination of measures to minimise adverse effects on employment.

The committee has also been concerned that a fixed link operator might adopt predatory pricing in a hid to see off the ferry operators and estahlisb a monopoly, even if this means that the link would be loss-*making* at *first*.

"It will be in the interest of any fixed llnk proposer to paint as rosy a picture of prospects as possible in order to obtain *this dominant position.* An over-optimistic representation of the fixed link's competitive advantage over the ferries does not matter if it has the effect *of gaining* the *franchise* and eliminates the competition," the report says.

"One must therefore beware of accepting that because a schema can attract finance, the traffic and profit forecasts which accompany it have some kind of market-tested validity."

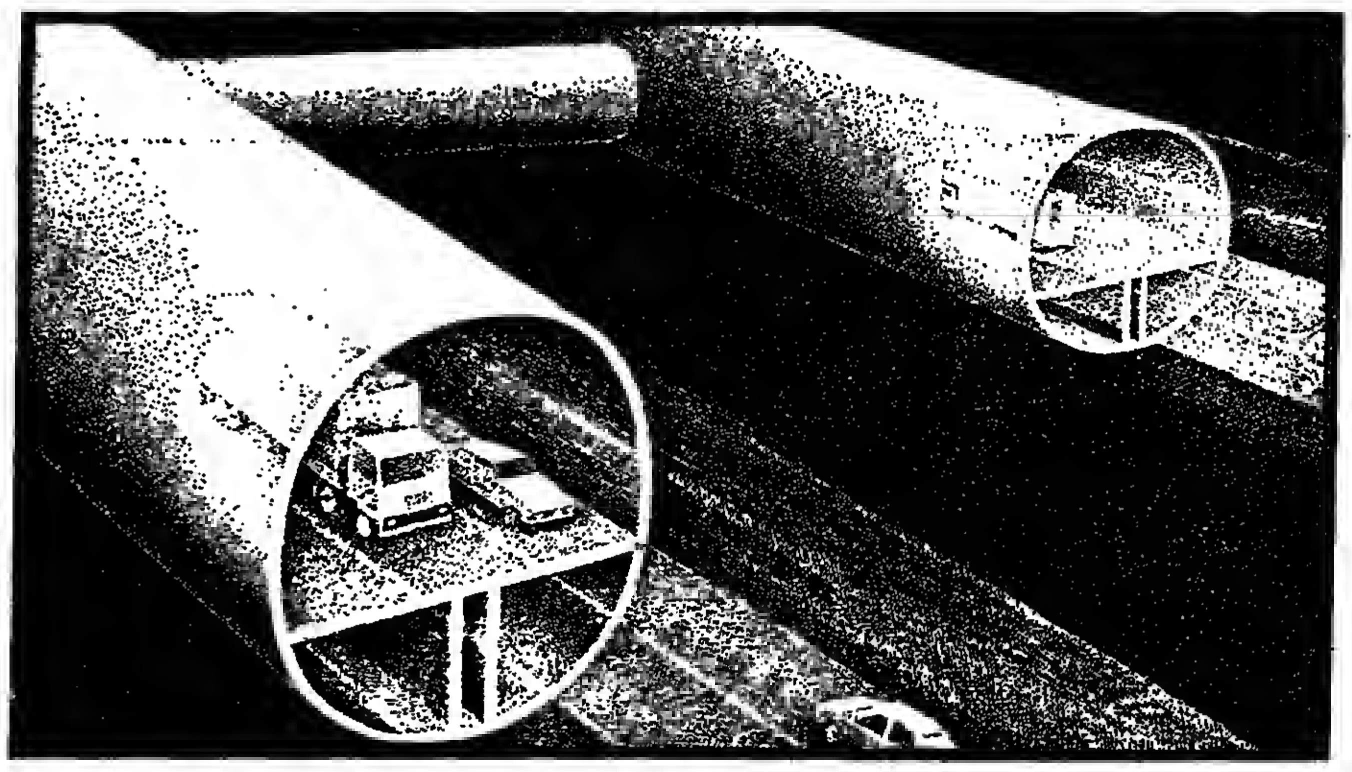
The committee recommends that the Government "ensure that a mandate to proceed with the scheme provides safeguards against predatory pricing and abuse *of an effective monopoly* position."

It rejects demands that any concession to a private operator of a fixed link be of a short duration only to prevent excessive exploitation.

The operator would be subject to normal monopoly controls and would be monilored by the Office of Fair Trading or some similar body, it says.

"Another option might be some form of sliding scale of tax liability *similar* to that which applied to oil revenues. This should ensure that in the event of high profitability the taxpayers of Britain and France would benefit and it would act as a disincentive to cberge what the traffic would bear."

A. T.



James Sherwood, chief executive of Sea Containers. His group has changed its plan.

EXPRESSWAY: Late entrant with plans for separate road and rail tunnels.

Plan which would keep 2,600 in work

SEA CONTAINERS, the Bermuda-based shipping group behind Channel Expressway's *plans* to build separate road and rail tunnels under the Channel, is also a member of Flexilink, the consortium wbich strongly opposes the construction of any fixed link at all.

Mr James Sberwood, chief executive of Ses Containers, says be would prefer tbet the link was not built but if the development goes ahead be wants it to be his scheme.

At stake, he says, are the jobs of 2,600 workers employed by the group on its short sea routes to Belgium and France. Mr Sherwood says he would close down these routes the day a fixed link opened. The only way to *save* the *jobs* would be to give the mandate to huild the link to Sea Containers' subsidiary, British Ferries.

Channel Expressway, founded by British Ferries, is a late entrant in the race to huild the link. Its plans were not disclosed until the very last day for submitting proposals to the British and French governmeots.

It, therefore, starts st a disadvantage as Britisb and French officials bave had so little time to assess the proposals before they bave had to maka their joint report to ministers.

Sea Containers' rivals have had much longer to prepare their plans, reect to criticism and modify their proposals accordingly.

Channel Expressway, however, bas made considerable progress since its plans were announced and is regarded as a very strong contender—now thet it bas overcome some of its teething prohlems. One obstacla whicb bas been cleared is the railways' objections to the proposals.

Sea Containers had originally planned to build a motorway tunnel with a rail track running through it. This proposal, following *criticism from* Britisb Rail and SNCF bas been scrapped and the group now plans to build separate road and rail tunnels.

The group has also been winning friends among the Britisb government and is a strong competitor to Channel Tunnel Group which is offering a rail only tunnel.

Plans modified

The British government would prefer a road and rail option as it fears that militant rail unions could hold future governments hostage if they controlled the crossing.

Nooetheless, there are reservetions about Expressway's plans. It has to convince that the technology it plans to use to overcome ventilation problems will work; that it is capable of raising the necessary finance; that it bas paid *sufficient attention* to attracting French support; and that cost estimates are not over-optimistic.

A recent report by the all-party House of Commons Transport Committee rejected the Expressway proposals on the grounds that they did not *satisfy the government* guidelines on ventilation standards.

The group's plan is to instal electrostatic precipitators at regular intervals along the 50 km twin-bore motorway tunnel. Air is cleaned of carbon and other solid exhaust components by drawing it across tha precipitators located in hy-pass tunnels. A similar system is used to remove solid material from gases emitted by power stations and has been adspted for use in road tunnels in Japan.

"The system is currently used effectively in tha Enasun and Kan-Etsu tunnels in Japan," says *Sea Containers,* "and though neither is even balf as long as the proposed Cbannel tunnel there will be no technical difficulty in extending the system to the much greater length."

In addition, Expressway plans to use North Sea technology to construet two ventilation shafts in the inshore shipping lanes off the coasts of Britain and France.

MPs on the transport committee claim, however, that the road scheme would need a much lower capacity than that proposed by Sea Containers to satisfy government guidelines on minimum ventilation levels.

To finance the scheme Sea Containers, like its main rivals, proposes to use a mix of equity and development loans. Cost of the road and rail schemes comhined is estimated hy the promoters at about £2.5hn at 1985 prices. This rises to more than £3hn after allowing for the effect of inflation at an average rale of 5 per cent a year.

Channel Expressway insists that *it* can build hoth *schemes* at the stated cost hut the prices are regarded by lts rivals as highly over-optimistic.

To raise finance (using 1985 prices), Expressway intends to issue ebout £400m in equity split roughly equally between Britain and France, with Sea Containers itself taking about £100m.

The remainder of the cash, about £2bn, is expected to he *raised* by *tapping international* financial markets for development loans. Credit du Nord of France and First National Bank of Boston would leed the fund-*raising*.

Once the link is huilt the operators intend to expand the equity base, replacing bank deht with long-term debt.

An early criticism of Sea Containers' plans has been the lack of an identifiable French partner in wbat after all is to be *an* Anglo-French venture.

Mr Sherwood, at time *of* writing, was pursuing a major French name in order to resolve this position.

Mr Sherwood denies that his costings are unrealistic. Instead, be says there are conflicts of interest in rival consortia containing major construction companies which would obviously seek to win lucrative contracts if their group wins the mandate to huild the link.

Expressway's plan is to construct a twin-bore tunnel, each tunnel wilb a diameter of 11 m to contain a two-lane higbway with a wide bard shoulder, more than 50 km from coast to coast.

The longest tunnel through which cars drive at present is the *St Gotthard in Switzerland* which ls 16 km long. Channel Expressway's submission to the two governments includes a psychologist's report which examines the possibility of drivers being mesmerised or facing psychological problems as a result of driving throngh the mucb longer Channel tunnel.

It concludes that modern devices for keeping drivers alert, such as strong lighting, signalling, variations in road surface, colours and design, which are Incorporated in the scbeme, will he sufficient to *prevent* accidents *from* such causes.

There will also be regular cross-over points between the tunnels as well as sophisticated electronic surveillance and traffic controls to maintain traffic flow and to assist with emergencies.

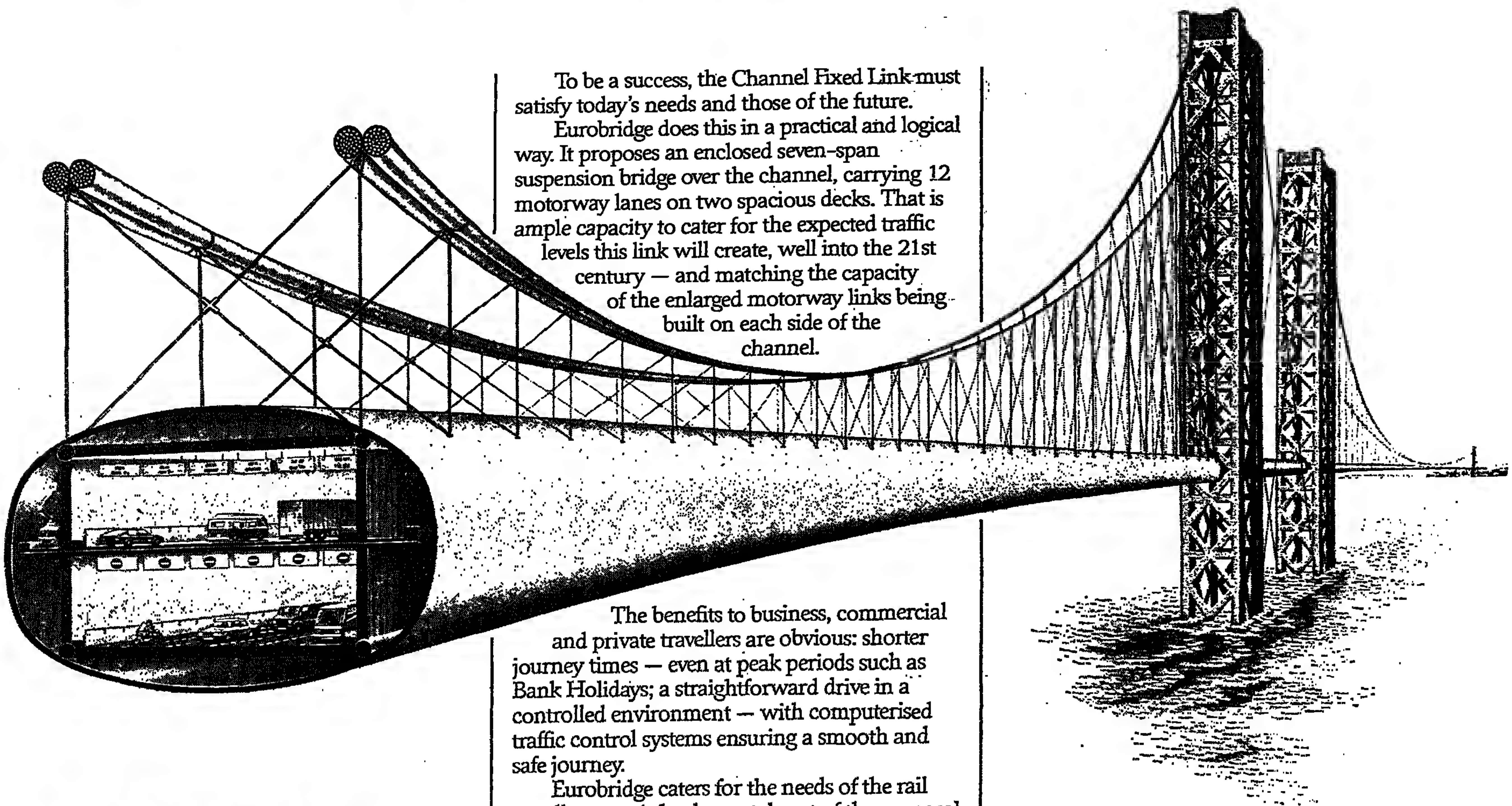
At either end of the road tunnel would be terminals sited, on the Britisb side, just north of Cheriton, a suburb of Folkestone, and at Sangatte, south west of Calais on the French coast. These would provide customs and immigration facilities as well as toll booths, shops and restaurants. There are no plans to include duty-free facilities as Sea Containers believe these will be precluded at frontier posts under EEC regulations.

The cost to motorists has been estimated at £40 for a private car and driver for a single journey (at 1985 prices) with a special day return rate of £20.

Expresswey's low cost and its road crossing as well as a rail link, will make it hard to resist, but *first Sea Containers* has to overcome the reservations obout some aspects of its proposals.

A. T.

EUROBRIDGE FOR THE 21ST CENTURY

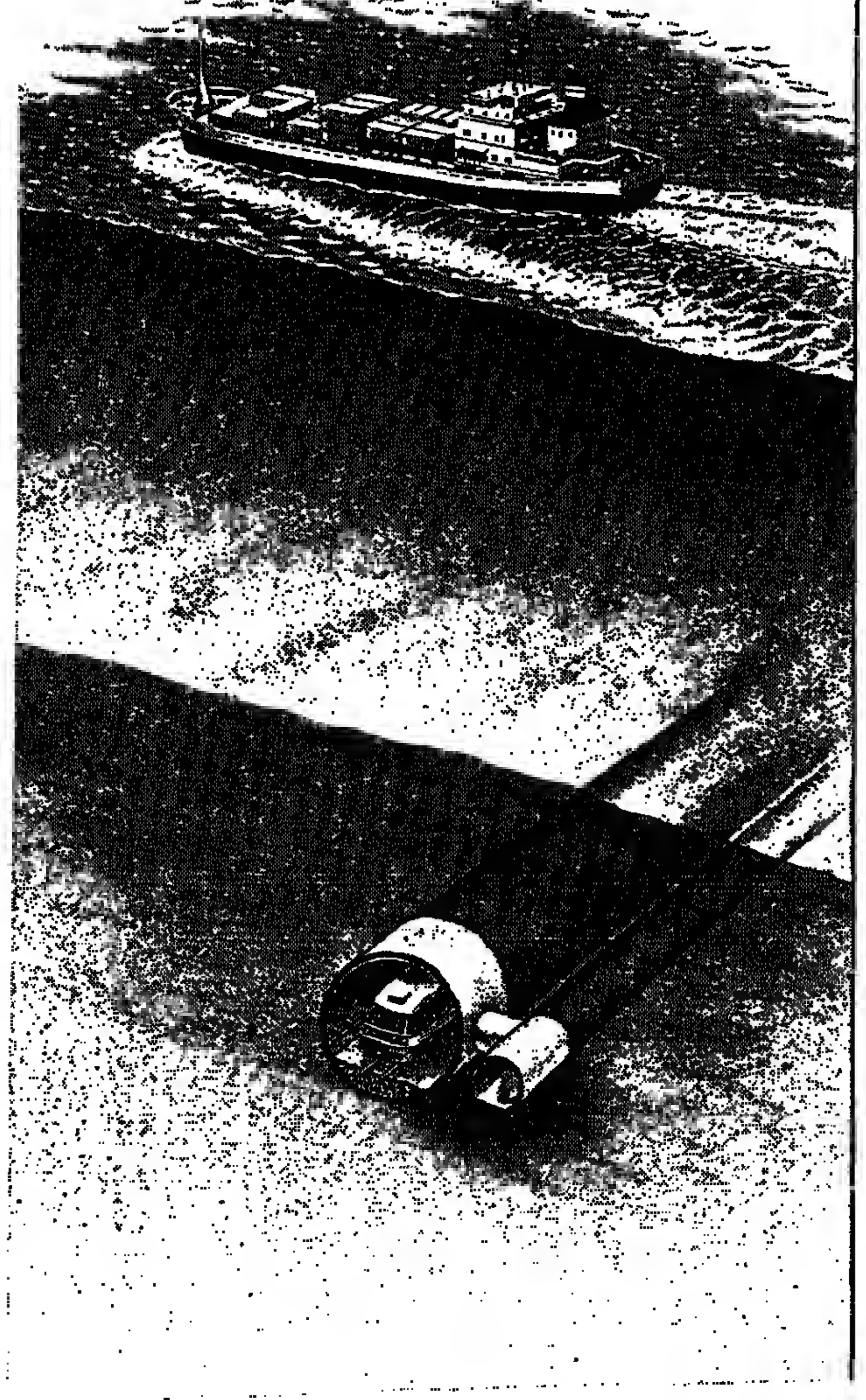


To be a success, the Channel Fixed Link must satisfy today's needs and those of the future.

Eurobridge does this in a practical and logical way. It proposes an enclosed seven-span suspension bridge over the channel, carrying 12 motorway lanes on two spacious decks. That is ample capacity to cater for the expected traffic levels this link will create, well into the 21st century — and matching the capacity of the enlarged motorway links being built on each side of the channel.

The benefits to business, commercial and private travellers are obvious: shorter journey times — even at peak periods such as Bank Holidays; a straightforward drive in a controlled environment — with computerised traffic control systems ensuring a smooth and safe journey.

Eurobridge caters for the needs of the rail traveller, too. A fundamental part of the proposal is a single rail tunnel for use by BR and SNCF to be built simultaneously with the suspension bridge.



Eurobridge will produce a healthy return on capital; one reason why Eurobridge is receiving so much support from influential British and French industries.

They believe that the combination of well-proven technologies, management expertise and far-sighted understanding of transport's needs make Eurobridge the solution for the Fixed Channel Link.

eurobridge

THE WAY PEOPLE WANT TO TRAVEL

Eurobridge Studies, 142 The Strand, London WC2R 1HH

The following have co-operated in the preparation of Eurobridge Studies' submission for the Channel Fixed Link Project:

INDUSTRY
John Laing plc
Brown & Root (UK) Ltd
Nord-France Entreprise SA
Entreprise Leon Ballot
SBBM — Six Construct
Chantiers Modernes
John Lelliott Holdings Ltd
Helmore & Helmore
A. N. Conseil
GEC Traffic Automation Ltd
Defence Systems International Ltd
IBM (UK) Ltd
ICI Fibres Ltd
Polymer Cements

PROFESSIONAL ADVISERS
Arbuthnot Latham Bank Ltd
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Richard Maxwell
J. A. Butlin
Sir John Biles & Partners
Robert Tucker Designs
R. J. Orwell & Partners
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SECTION II – COMPANIES AND MARKETS

FINANCIAL TIMES

Monday December 16 1985

Happy Christmas from TAYLOR WOODROW

Association moves closer towards international status

THE Association of International Bond Dealers (AIBD) is on its way to becoming an international exchange writes *Maggie Urry in London.*

Thet may seem an odd idea to those who in the past have regarded it as little more than a drinking club. But the new role is envisaged for the AIBD in the self-regulatory framework to be set up under investor protection legislation.

Mr Damien Wigny, the AIBD chairman, said at the extraordinary meeting last Friday that the international bond market did more business in a week than the London Stock Exchange did in a year.

The meeting was another step along the way to exchange status. An exchange must have rules and codes of conduct for doing business, something the AIBD has always had. But now that the rule-making power has been passed to the board, subject always to the annual meeting's veto, changes to rules can be made much more speedily in reaction to developments in the market.

The new system of electing the board was regarded as part of a reform package. It was vital that, if the board was given greater power, it should be seen to be democratically elected and have the ablest possible members.

Another part of being an exchange is ensuring good price information. The AIBD has been gradually moving from monthly to weekly and then daily price lists. The next step could be to a screen-trading facility – the subject of a study to be completed by September 1986. A system along the line of Nasdaq, the US over-the-counter equity dealing screens, is suggested.

This will need careful consultation with traders who, it is generally thought, "do not like dealing on screens." Traders do not want their business to be too open, they may want to make different prices to different people, and they like to see the people with whom they are trading. They possibly also fear for their jobs. In the 1970s a system called Eurex was tried and failed.

The contrary view is that the screens could take away the drudgery and the unprofitable parts of a trader's job, giving him more time to serve clients. Screens are already making an appearance in the Eurobond market and have taken much of the business in the US Treasury bond market. The AIBD is keen that, if there is to be an automated system, it should be one meeting members' requirements and not one imposed from outside.

Screens could free traders from having to quote prices to people who do not then deal – prices could be checked onscreen. Trades in small amounts could be done on-screen and settled through the computer – the cost of processing such deals often exceeds the profits of doing them. That should add liquidity to the parts of the market not otherwise reached.

Further, with prices ou screens, there is greater transparency and hence more protection for investors.

● Away from the investor-protection question the problem of settling internal disputes is also under review, and the AIBD board will be putting proposals for changes to the statutes at the next annual meeting in May.

Experience of using the arbitration procedure set out in Article 22 of the AIBD's statutes has shown that the process is lengthy and costly. The suggestion is that a step before arbitration should be required – that of conciliation. If two parties can settle a dispute without bringing in expensive lawyers, all the better. If not, the arbitration process can still be followed.

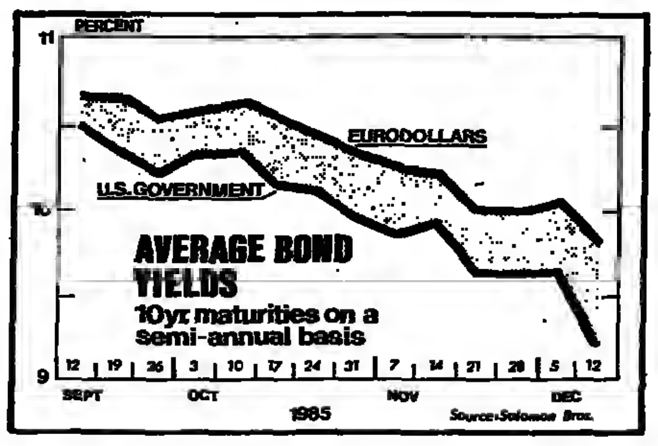
Here the AIBD would like to take a more active role, for example by setting up a panel of arbitrators. Also rules of procedures could be written. At present each arbitration starts with the writing of its own set of rules.

US rally takes the shine off swaps

EURODOLLAR syndicate managers think only about "spreads to Treasuries" these days when pricing fixed-rate deals, writes *Maggie Urry in London.*

By that, they mean the yield on the bond compared with the US Treasury yield for a similar maturity. These spreads are all important, and last week they were moving against the Eurobond market.

The strong rally in the New York market last week meant yields were falling faster there than in the Eurodollar market which, as usual, lagged the rise. Consequently swaps, priced by reference to Treasury yields, are not attractive and borrowers can obtain cheaper funds through an issue in New York. Export Development Corporation of Canada showed that with a Yankee issue, which came at a narrower spread than would have been likely with a Eurobond issue.



New issues launched at the start of the week, such as Equitable-Lord's deals, were trading comfortably within their fees by Friday, but at much wider spreads.

This widening deterred most borrowers towards the end of the week, but Procter & Gamble was still able to launch a deal on Friday afternoon with a 15-year life and a 9⅝ per cent coupon. It came at a spread of 45 basis points over the 10-year Treasury (there is not a suitable 15-year comparison) taking account of the fees payable, seemingly not an outlandish margin. But dealers pointed out that the yield was slightly below 20-year Treasury yields and that other Procter & Gamble paper yields more.

Still, it is a mark of the recent strength of the market that coupons, even on such long-dated paper, are now well below 10 per cent. Some borrowers may look at that absolute level and not worry about "spreads."

Investors are now clearly slowing down for Christmas, and many syndicate managers are hoping to save up deals for the new year in order to have a good run at the league tables. Borrowers have caught on to the fact that in January new issue houses may be willing to give even better terms.

With retail demand drying up the Euro-Australian sector of the market cannot cope with the weight of new issues. Six deals have come in the past two weeks into a market where two would probably satisfy demand. But with coupons so far below domestic levels, despite the 1-point rise engineered by Orion Royal Bank for the ANZ Banking issue, swaps work. And it is generally the swaps that drive the deals rather than the buying demand. So there could still be more deals coming.

Demand does seem to have picked up for Euroyen fixed-rate bonds, and the three which were launched last week all traded within commissions. More of these issues are expected. Dual-currency deals did not fare so well, with Monsanto's issue well outside commissions.

Floaters are still the talking point in the D-Mark market, with investors showing a marked dislike of *the deals' maximum coupons.* The EIB's issue was not seen trading away from lead manager Commerzbank, and it is thought all the bonds will be kept in-house. The other two were trading at discounts around the commissions.

Prices for fixed-rate deals were up by as much as ¾ point last week though volume is still low.

The Swiss franc foreign bond market was also higher last week by around ¼ point. The novel perpetual issue for Air Canada, which does not have any coupon refixes, was practically sold out despite its size, though some traders regard it as risky. It was trading around par on Friday.

The People Express convertible issue is due to start trading on the stock exchanges today with traders *calling it 98¾ on Friday.*

In the new issue market Donaldson Lufkin Jenrette, the wholly owned subsidiary of Equitable Life Assurance, launched a SFr 200m public deal. This has a put option in the event that the company becomes less than 60 per cent owned by Equitable.

● Euro-clear, the settlement system for international securities, is simplifying its fee structure by eliminating transaction fees from January 1 next year. Safekeeping and bond-borrowing fees will also be reduced. It is estimated the change will cut user's fees by more than $15m in 1986. The board expects results for 1985 to have been "excellent" and anticipates that rebates of fees for 1985 will exceed $15.4m, up from $7.9m in 1984.

● Hundreds of thousands of dollars came in for the Bond Aid appeal for the Save the Children Fund last week, and Sir Nicholas Goodison, stock exchange chairman, has given his support. Donations are still being accepted this week, with anonymous gifts welcome. The organiser's phone number is 01-382 8508.

EURONOTES AND CREDITS

Romania surprises by returning for a further $150m

BY PETER MONTAGNON, EUROMARKETS CORRESPONDENT, IN LONDON

ROMANIA has surprised international bankers by returning for a further $150m credit barely a week after its first large borrowing operation since 1980 was signed.

It is understood to have mandated Kuwait Foreign Trading Contracting and Investment for the new deal, which is to be for five years. Interest margins are expected to be 1¼ per cent over London interbank offered rate (Libor) for the first 2½ years, rising to 1⅜ per cent thereafter.

The deal is expected to be *mainly* an Arab bank affair, especially since elsewhere the market shows every sign of closing down for the Christmas holidays. The assumption is also that Kuwaiti institutions are interested in lending to Romania because of that country's need to import oil.

But the deal, for what is traditionally regarded as a difficult borrower, also illustrates bow the market for East European borrowers has opened up in a way that eludes their counterparts in Latin America. OECD figures show that they *raised nearly $4bn in the Eurocred*it market in the first 11 months compared with $3.3bn in 1984.

Some senior US bankers now argue that the revival from the dark days of 1981 and 1982, when lending almost dried up, suggests that there is scope for Latin America to revive "voluntary" loans.

The background is very different. *Faced with the debt crisis,* East European countries undertook a brutal adjustment, which saw their *bank borrowings fall sharply.* At $51.3bn by mid-1985, those were still more than $9bn less than their *total at the end of 1981.*

In contrast, according to the Bank for International Settlements, borrowings by Latin America increased in the same period to $211.8bn from $158.4bn. In other words, repayments by Eastern Europe have created space for fresh loans, whereas in Latin America they have not.

Among the few new other deals last week were a $200m Eurocommercial paper and certificate of deposit programme announced by Credit Suisse First Boston for State Bank of South Australia. Northern Indiana Public Service, a gas and electric utility, has mandated Merrill Lynch to arrange a $70m, three-year standby facility.

That carries an annual fee of 20 basis points and allows for the sale of notes at a fixed margin of 20 basis points over Libor. It will be used to back up sales of commercial paper in the US.

Gaz de France has pulled in $245m from the market in syndication of its $700m facility. The bulk of the subscriptions came, as expected, from Japanese institutions.

Carbide plans $230m disposal

UNION CARBIDE, the multinational chemical company which is facing a hostile takeover bid from GAF of the US, is selling its worldwide film-packaging business for $230m, writes William Hall in New York.

Mr Warren Anderson, Union Carbide's chairman, described the sale of the group's 11 manufacturing plants and three service centres to Chicago-based Envirodyne Industries as part of the company's corporate restructuring programme, announced in August.

"Film-packaging is a stable business but no longer fits Union Carbide's strategic objectives," Mr Anderson said. Mr Ronald K. Linde, chairman of Envirodyne, described the acquisition as "an excellent well-managed business that will enhance Envirodyne's presence in manufacturing and supplying products to the food industry."

The major shareholder in Envirodyne, which makes plastic cutlery, is Artra, controlled by the Harvey family of Chicago. Artra has interests ranging from costume jewelry to plastic drinking straws.

The business manufactures and sells cellulosic casings and related systems for processed meats and poultry for worldwide markets.

EUROMARKET TURNOVER
Turnover ($m)

	Straights	Conv	FRN	Other
Primary Market				
US$	3,365.5	4.3	584.5	537.5
Prev	2,749.2	276.6	5,377.3	246.0
Other	548.6	4.2	20.1	117.3
Prev	829.3	280.7	1,765.6	145.0
Secondary Market				
US$	16,992.0	1,373.2	14,403.8	2,289.7
Prev	18,660.5	1,856.0	12,678.3	2,167.9
Other	4,164.8	155.5	2,485.8	2,179.2
Prev	6,717.9	287.3	2,948.8	1,871.1

	Cedel	Euroclear	Total
US$	11,748.5	27,802.1	39,550.6
Prev	12,420.0	31,591.9	44,011.9
Other	5,525.8	4,149.8	9,675.6
Prev	6,820.1	7,025.8	13,845.9

Week to December 12 1985 Source: AIBD

INTERNATIONAL CAPITAL MARKETS AND COMPANIES

Maggie Urry reports on a new player in a $400bn a year Euro-securities game

Pru-Bache opens up a swaps warehouse

IN AN old East India Company warehouse on the edgea of the City a new kind of storage business has been crealed. Gone are the dusty tea-chests, and in gleaming new offices Prudential Global Funding now stacks electronically the swaps il has taken on as principal.

A swap is created when two borrowers agree to exchange tbe interest payments on their debts. There ia no exchange of principal. If one horrower bas raised, for example, fixed-rate debt but would like floating-rate debt, it can find a counter-party to issue floating-rate debt and the two can swap the stream of payments. The same idea can also be applied to horrowings in different currencies.

Linlng up a counter-party at tbe same moment as a bond issue is launched is the difficult part and this is where Pru-Bache, and the handful of other housea which operate swap warehouses, can step in. The firm has a triple-A credit rating thanks to its parent the Prudential Insurance Company of America. It can act as one side of a swap, holding the position aod halancing it with other swaps in the warehouse.

The idea for the swap warehouse came from Prudential-Bache Securities, the investment firm formed when Prudential took over Bache in June 1981. In the last couple of years, aa swaps have been increasingly important in the international bond markets, it has become clear that a securities house must bave a swap capability if it is to get into the blg league.

It was then up to Pru-Bache Securities to sell the concept to the Prudential, and in December last year Dlckson Brown was hired from Citicorp's swap department to work on tbe proposal. He argues "you cannot be in the securities husioess without being in swaps. yon must do both or you will get murdered." He estimates that worldwide swap transactious this year will have totalled $400bn, a figure double most guesses of the market size. A few years ago the business harely existed.

Particular logic to Prudential

The idea had a particular logic to Prudential, which as a major insurance company had huge funds to lnvest. Much of its lending had ln the past been io the form of private placements to the typical "middle America" corporate at high rates of interest. These companies were beginning to find that they could borrow from their banks on a floating-rate hasis and swap the proceeda into fixed-rate money at a lower cost than they were paying the Prudential, taking away the Pru's business.

Five months after Mr Brown joined Pru-Bache the approval of the Prudential was gained and in June Prudential Global Funding opened for business with a capital of $10m. It bas offices in New York and London and will soon open in Tokyo as part of Pru-Bache'a operations there.

Since then, the business bas grown at a far faster rate than even Mr Brown expected. There is now $4hn worth of swaps in the warebouse. Because there ia no exchange of principal tbe risk involved is the lnterest rate exposure.

As a consequence stock control is rather more advanced than it was in the days of the old merchants who originally occupied the huilding. By separating out the constituent parts of each swap the computer works out every day the firms net exposure to interest rate moves, which is generally aurprisingly low in relation to the size of the portfolio. This exposure ia then bedged.

Nor do the swapa languish in the warehouse gathering dust. The average shelf life of a swap is only five to 10 days.

Since the start up 110 swaps have heen arranged—a far higher figure than even Mr Brown had expected. And the portfolio is much more diversified than he had predicted too, with the corporates taking a smaller proportion of the total.

Generating business for other parts

Bnt as well as providing work for the swap team, the new warebouse has generated business for other parts of Pru-Bacbe. Tbe firm was a small player in the Eurobond new issue market taking part in only a few deals. Since June it has co-led 14 Eurobond issues. Putting the primary bond market department together with the swap experts has created more ideas and the firm's swap capahilities "makes Pru-Bache a very interesting partner," says Brown.

The extra benefits spread even wider. As primary market activity increases the firm's salesmen have a wider range of honds to sell to clients. "Sales volume has douhled every month since I have been here," says Ged Smith, Pru-Bache's syndicate manager who joined in August. The secondary market side, where there has been a revolution in personnel following the departure of Christopber Maytum and the hulk of the trading team, has had more to do, for instance as the firm buys blocks of older issues and swaps them to create synthetic securities.

Further tban that Prudential Global Funding's activities provide work for the firm's US Treasury traders and futures traders too. As an example Mr Brown, wbose Wall Street banker veneer crumbles to reveal his Scottish origins wben excited, demonstrates how the firm created over $600m-worth of business by buying $100m of the UK Government's floating-rate note issue. Through swaps and hedges involved in repackaging the deal into a fixed-rate issue, which was then syndicated and sold ln the Eurobond market, the firm produced business far beyond the simple swap fees.

Mr Brown believes that firms who do not have this presence in all the various parts of the international capital markets will not survive. He reckons that there are about 20 institutions worldwide which are in a position to compete and that there will be a "dramatic polarisation" of houses in the market. What's more,he says, "the firms that are successful are essentially the consensus firms," houses where people work together.

Is Prudential Global Funding profitahle then? Mr Brown laughs. "Let's just say that the Prudential is happy with the return on its investment."

Saudi bank's nine-month net earnings slip 25%

BY OUR FINANCIAL STAFF

AL-BANK al-Saudl al-Fransi is the seventh Sandi hank to post weaker earnings for the first nine months of 1985. It reports a 25 per cent fall in profits to 81.3m riyals from 108.1m in the same period last year.

Five of the hanks that reported earlier showed nine-month profit declines of betwen 10 and 72 per cent. The sixth posted a loss. Saudi Arahia has 11 commercial banks.

Saudi Fransi'a unaudlied balance sheet, showed that 67.8m riyals were added to provisions. This is 4m riyals more than a year earlier.

The bank is 40 per cent owned by Banque Indosuez of France and the rest hy private Saudi shareholders. Its assets jumped to 13.05hn riyals at end-September from 11.81bn riyals a year before.

Saudi hanks are posting nine-month earnings and loan-loss provisions for the first time tbis year. Bankers say the Saudi Arahian Monetary Agency wants more explicit reporting hy banks.

However, Mr Mohammed Aba Al-Khail, Saudi Minister of Finance and National Economy, points out that the Kingdom's average bank profitahility is still higher than the world average.

Mr Al-Khail said that the top 500 banks in the world bad average profit-to-asset ratios of 0.63 whil: Saudi-American Bank has a ratio of 1.2 per cent and Arah National Bank has a ratio of 1.68 per cent.

The Minister also sald Sandl banks are less leveraged than tbe world average.

Exxon in Timor Sea oil deal

By Our Financial Staff

EXXON Corporation's Australian subsidiary has agreed to purchase Cilco Australia Petroleum from Occidental International Exploration and Production.

The price of the purcbase was not disclosed, and the transaction ls subject to government approvals. If it goes ahead the move will glve Exxon access to oil prospects in the Timor Sea off the North coast of Australia for the first time.

Citco Australia holds an 18.75 interest in the Jahiru oil field, which is about 600 miles west of Darwin and the only commercial oil dlacovery in the Timor Sea so far. Broken Hill Proprietary owns 50 per cent of the oilfield and ls tbe operator.

The Jabiru field is expected to go into production in mid-1986, putting out about 13,000 barrels of oil per day.

Otis South Africa lifts payout as profit improves

BY JIM JONES IN JOHANNESBURG

OTIS ELEVATOR, the 70 per cent-owned South African aubsidiary of United Technologies of the US, increased turnover and profits in the year ended Novemher 1985 and has continued to pay out almost all of its profits.

Turnover rose to R59.7m from R50.7m in the previous year, and the pre-tax profit increased to R15.7m from R13.9m.

The company expects the current year's trading to be difficult, though Otis has sufficient work on hand. Otis was among the first, American-controlled companies to pay out in dividends its entire distributahle reserves in order to reduce its South African profits content.

Earnings rose to 47.4 cents a sbare from the previous year's 41.1 cents. The total dividend has been raised to 44 cents from 40 ceots.

● Dunlop and BTR have agreed terms for the merger of their South African operations.

Duolop South Africa will issue 5.27m new shares to BTR shareholders in the proportion 35 Dunlop shares for 100 BTR. Following the acquisition, BTR's listiog on the Johanneshnrg Stock Exchange will be terminated.

The terms have still to be agreed hy shareholders. However, BTR and Gold Fields of South Africa, which together own 77.2 per cent of BTR South Africa's equity, intend to accept.

NEW INTERNATIONAL BOND ISSUES

Borrowers	Amount m.	Maturity	Av. life years	Coupon %	Price	Book Runner	Offer yield %
U.S. DOLLARS							
Equitable-Lord Rlty ‡	105.765	1995	8.07	10⅛	99¾	Goldman Sachs	[illegible]
Equitable-Lord Rlty ‡	100	1997	11.53	10½	99¾	Goldman Sachs	[illegible]
World Bank ‡	200	2001	15	10	100¼	Shearson Lehman Bros.	[illegible]
World Bank ‡	500	2002/10	—	0	(f)	Shearson Lehman Bros.	—
Smith & Nephew Ass. §	60	2000	15	(5⅛–5½)	100	Kleinwort, Benson	[illegible]
British Petroleum ‡	150	1993	7	9⅛	100⅛	Morgan Stanley	—
Belgium †‡	150	1995	10	(c)	100.1	Morgan Stanley	—
Belgium (d)†‡	250	2011	25	3bp	100.1	Morgan Stanley	[illegible]
Emerson Electric ɸ‡	100	1995	10	9⅝	100⅛	Morgan Guaranty	[illegible]
Swedish Export Cr. ‡	100	1993	7	9⅝	101¾	Daiwa Europe	[illegible]
Public Service El. & Gas ‡	75	1996	10	9⅞	100¼	CSFB	[illegible]
Barings BV (a)†‡	100	2001	15	³⁄₁₆	100	CSFB	—
EDC of Canada (f)‡	150	1991	5	8⅞	99.555	Salomon Brothers	[illegible]
Procter & Gamble ‡	150	2001	15	9⅝	100⅛	Goldman Sachs	[illegible]
AUSTRALIAN DOLLARS							
Bell Group §‡	75	1995	10	11	100	SBCI	[illegible]
ANZ Banking ‡	50	1990	4	15¼	100½	Orion Royal Bank	[illegible]
Total ‡	40	1990	5	14½	100	Banque Paribas	[illegible]
B. Nat. d'Agriculture ‡	40	1991	5	15⅛	100⅜	CIBC	[illegible]
D-MARKS							
Maruzen Showa Unyu ¶‡	25	1990	5	2⅞	100	CSFB-Effectenbank	[illegible]
Den norske Creditbk (a)†‡	250	1996	10	⅛	100	WestLB	—
Mitsubishi Fin. (HK) (b)†‡	300	1996	10	³⁄₁₆	100	Deutsche Bank	—
Japan Fin. Corp. ‡	100	1992	7	6⅜	99¾	Deutsche Bank	[illegible]
EIB (g)†‡	125	1990	5	⅛	100	Commerzbank	—
SWISS FRANCS							
Mitsui Sugar Mnf **¶‡	50	1990	—	2⅞	100	Banca del Gottardo	[illegible]
Atsugi Nylon Ind. **§‡	60	1991	—	2	100	SBC	[illegible]
VMF-Stork **‡	25	1993	—	5¾	100	Credit Suisse	[illegible]
Air Canada ‡	300	—	—	6¼	100	SBC	—
Donaldson Luf. & J. ‡	200	1996	—	5⅝	100	First Chicago	[illegible]
ECUs							
Instrum Volvo ‡	50	1996	8	9	100	Kansallis-Osake-Pankki	[illegible]
Corinvest ‡	40	1993	7	9	100	Kredietbank Int.	[illegible]
Swedish Export Cr. ‡	60	1993	4½	8⅝	100¼	Morgan Stanley	[illegible]
FRENCH FRANCS							
Crédit National ‡	500	1993	7	10⅝	99¾	Société Générale	[illegible]
LUXEMBOURG FRANCS							
Dyno Industrier **‡	300	1991	5	8⅞	100¼	Kredietbank Int.	[illegible]
Copenhagen Tel. ‡	600	1996	10	8⅝	100	Kredietbank Int.	[illegible]
YEN							
Mitsui & Co. ‖‡	20bn	1996	10	9	101½	Nomura Int	7.778
Allied Signal ‡	20bn	1993	7	6⅜	101	Nomura Int.	[illegible]
Monsanto ‖‡	10bn	1996	10	8⅛	101¾	Bank of Tokyo Int.	[illegible]
Transamerica Fin. ‡	10bn	1991	5	6¾	101	LTCB Int.	[illegible]
Eurofima ‡	20bn	1993	7	6⅞	101¼	Nikko Secs. (Europe)	[illegible]

* Not yet priced. ‡ Final terms. ** Private placement. § Convertible. † Floating rate note. ¶ With equity warrants. ɸ With bond warrants. ‖ Dual currency. (a) ¼ over 6m Libor, maximum coupon 8⅝%. (b) ³⁄₁₆ over 6m Libor, maximum coupon 8⅝%. (c) Equal to 6m Libor flat. (d) 3bp over 6m Libor. (e) Extendible to 2000. (f) Launched on US domestic market. (g) ⅛ over 6m Libor, maximum coupon 7¾%. (h) ³⁄₁₆ over 6m Libor. Note: Yields are calculated on AIBD basis.

Computerland agrees to public share offer

BY LOUISE KEHOE IN SAN FRANCISCO

COMPUTERLAND, the largest US computer retailer, has agreed to make a public share offer as part of the interim settlement of an extraordinary legal dispute that has threatened the future of the computer-store franchise chain in recent months.

The share offer, which will take place when the company's board judges the market to be positive, could raise as much as $800m, according to Computerland investors.

Computerland has over 800 franchised computer stores and posted total sales of about $1.4bn in 1984.

Under the terms of the out-of court agreement, Computerland founder Mr William Millard will step down as chairman, and his daughter Barbara, former Computerland president, will also give up her seat on the Computerland board.

The agreement marks a truce in a bitter battle for control of the company which began with a suit filed by an investor group called Micro/Vest alleging that Mr Millard failed to pay off a nine-year-old promissory note for $250,000 for which, the group claimed, Mr Millard had pledged 20 per cent of his holdings.

Micro/Vest won a judgment for 20 per cent of Computerland's stock plus $141m in damages earlier this year. Ever since, Mr Millard has been threatening to appeal, but to do so he needed to raise a $25m bond, which apparently proved impossible.

US MONEY AND CREDIT

Bond prices surge on signs of Fed easing

BOND PRICES surged last week as investors responded to lower short term interest rates, reflecting an apparent slight easing in the Federal Reserve Board monetary policy stance, the passage of the Gramm-Rudman balanced hndget legislation and Opec's oil price disarray.

The ralty took bond yields in most sectors to their lowest levels in six years and brought the Terasury long bond down close to the 9.50 per cent mark. Last week's gains, which saw government hond prices rise by between 1½ and 3¾ points and the Treasury yield curve narrow further to 237 basis points, continued an almost unbroken 10-week rally.

The immediate trigger for the latest leg to the rally came as Congress finelly passed the historic balanced budget legislotion—taked on to a bill raising the Federal deht ceiling limit to over $2,000 bn. The Congressional oction came hard on the beels of the news that Opec intended to hold on to merket share rather than continue to try to prop up oil prices.

US MONEY MARKET RATES (%)

	Last Friday	1 week ago	4 wks ago	—12-month— High	Low
Fed Funds (weekly average)	7.98	8.44	8.13	8.77	7.10
Three-month Treasury bills	9.98	7.26	7.35	8.75	6.67
Six-month Treasury bills	6.97	7.32	7.38	9.20	6.81
Three-month prime CDs	7.70	7.95	8.00	9.40	7.33
30-day Commercial Paper	7.75	7.90	8.00	8.95	4.95
90-day Commercial Paper	7.60	7.80	7.88	8.20	7.00

US BOND PRICES AND YIELDS (%)

	Last Friday	Change on week	Yield	1 week ago	4 wks ago
Seven-year Treasury	103½	+2	8.04	8.46	8.66
20-year Treasury	100	+3¼	9.71	10.00	10.30
30-year Treasury	103⅞	+3¼	9.53	9.86	new
New 10-year "A" Financial	n/a	+2½	10.00	10.40	10.63
New "AA" Long utility	n/a	+3¾	10.63	11.00	11.25
New "AA" Long Industrial	n/a	+2¼	10.80	10.86	11.13

Source: Salomon Bros (estimates).

Money Supply: In the week ended December 2 M1 rose by $5.3bn to $626.1bn. In November M2 rose by $13.8bn to $2,533.4bn and M3 rose by $13.3bn to $3,150.6bn.

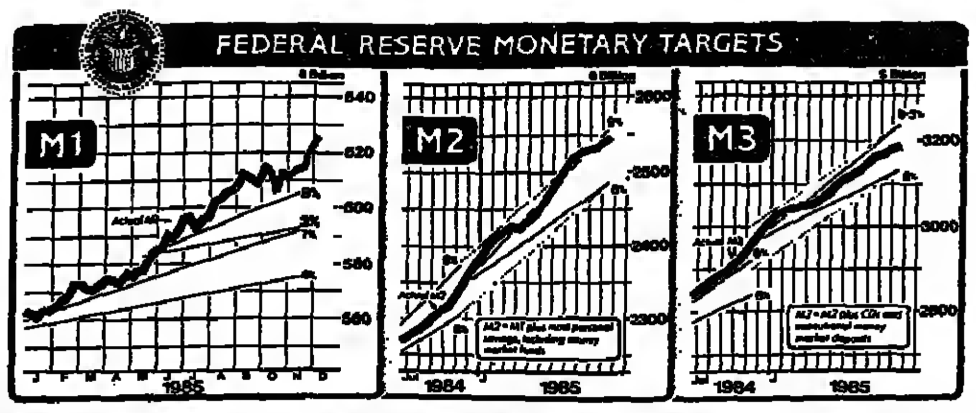
Investors seized upon the combination of the passage of the Gramm-Rudman package — which aims to cut Federal deficits progressively down to zero by 1991 — together with the prospect of further declines in oil prices, as signalling the possibility of an easier Fed and lower interest rates coupled with sustained moderate non-inflationary growth.

Even though the markets and private sector economists still remain somewhat sceptical of the real force of Gramm-Rudman — a measure Mr Paul Volcker, the Fed chairman described cautiously as a "healthy step" — and were a little disheartened by the constitutional legal challenge posed by it, market psychology has plainly been boosted.

The euphoric mood was reinforced by a growlog helief that the Fed may have already eased monetary policy, and that this could eventually encompass a Discount Rate cut. Short-term interest rates broke out of their recent holding pattern and began to head downwards — helped by the Fed's highly visible and aggressive additions of market liquidity.

The Fed Funds rate fell to around 7.75 per cent from above 8 per cent in recent weeks, Treasury Bill rates dropped by between 27 and 37 basis points with the six-month T-Bill rate trading below 7 per cent and bank certificate of deposit rates fell by similar amounts — raising hopes of an early cut in the current 9.5 per cent prime rate.

Although intense speculation that the Fed would cut the Discount Rato from its current 7.5 per cent level again proved false, most senior economists agreed that the Fed's ections appeared to signal a slight easing ahead of tomorrow's key policy making Federal Open Market Committee (FOMC) meeting — the last one of the year.



Dr Henry Kaufman of Salomon Brothers said. "The Fed has already signalled an intention to push the funds rate lower. At a minimum, lest week's eggressive reserve supplying—despite an unusually low level of discount window borowing—suggests that the Fed would prefer to see the Federal Funds trading in the 7.5 per cent to 8 per cent range, in contrast to the 8 to 8¼ per cent level that has prevailed since October."

Dr Kaufman added, "The Fed'o epparent move to o more accommodative stance is occurring against the backdrop of continuing mixed reports on the economy and money supply. Recent economic data do not indicate o broedly hased rebound. The rise in November retail sales does not portend a strong Christmas selling season. Meanwhile industrial production has decelerated sharply from its third-quarter gains."

Among the upcoming economic statistics, the fourth-quarter "flash" gross National Product figure is due out on Friday. The other figures likely to attract the FOMC'e attention are the monetary aggregates. While M1 continues to romp ahead, the markets at least took comfort from the lower than expected 6.5 per cent increase in M2 and 5 per cent increase in M3 in November, meaning that both the broader money supply measures remain safely within their long-term torget hands.

This week also sees the Treasury return to the auctioo business in a big way with $9.5bn of two-year notes tomorrow followed hy $7bn of four-year notes on Wednesday and $9bn of one-year hills on Thursday—all in addition to the weekly $15.2bo Monday bill auction.

For the moment however the credit markets appear to have a healthy appetite for new paper. Last week the market was again deluged with new corporate issues as corporate treasurers rushed to take advontoge of lower funding costs and higher prices. Corporate hond prices rose sharply lost week and new issue yields fell by between 25 and 40 basis poiots despite a massive $3.5bn in new issues.

Paul Taylor

UK GILTS

Losses recouped after roller-coaster week

SINCE OCTOBER, the gilt market has seen the Government as fighting a battle for the credibility of its economic policies, and in particular of its determination to fight inflation. Last week, ministers' handling of a delicate situation won them the first round.

The Government was widely perceived as depending too heavily on the good behaviour of the pound and oil prices in a switch to a modestly more expansionary tack, viewed by many as akin to "Reaganomics," including the scope for tax cuts of perhaps £2bn or more in the March Budget.

Sterling and oil prices both strengthened steadily for some weeks. But they tumbled rapidly in severe disarray at the start of last week as Opec decided to seek a "fair share" of world oil markets, with the implicit threat of a price war.

There was the potential for a classic crisis. If dollar oil prices fall, the potential for tax cuts is redneced or even eliminated unless a decline in the pound neutralises the impact on sterling revennes.

If the pound falls, the Government'a anti-inflationary stance comes into question. Since hroad money eupply targeting has been suspended, the exchange rate is the only yardstick by which to judge that stance. (The markets pay little attention to Mo, the officially preferred narrow money aggregate.)

The Government acted quickly. The Prime Minister on Tuesday ruled out a near-term cnt in interest rates, and next day gave an assurance that, despite the desire to cut taxes, "we are not prepared to put at risk our paramount objective of lower inflation."

Her assurances did the trick —contrasting sharply with the Government's far less effective handling of a similar crisis last winter. By Friday morning, the gilt market had reconped all its losses, and the pound had also recovered some ground.

Some luck was involved. OPEC itself tried to assuage the oil markets' fever. Financial markets were encouraged by the signing of the Gramm-Rudman hill to reduce the US budget deficit, and by rising expectations of a US discount rate cut.

On Friday, some of the recovery in gilts was eroded partly by the unexpected announcement of £600m of taplets.

After such a roller-cooster week, the market was left hoping that OPEC was hluffing, and that the Government was not. Such hopes were not generally seen as a solid foundation for a rally.

Oil prices were extraordinarily erratic, providing an unreliable guide to where they would settle. Economists at James Capel argue that if OPEC keeps production at current levels, "there appears to be no natural floor for the oil price."

Doubters of the Government's anti-inflationary resolve believe that, despite the rhetoric, it would be reluctant to give np tax cuts. A combination of both factors would create the risk of a lower pound, higher interest rates and higher public borrowing.

The gilt market thus remains vulnerable to the pound and oil prices and to the Government's reaction to their movements. It is already wary of a possible rise in inflotion in the second half of 1986, ond of official economic projections generally seen os too rosy.

But it is underpinned hy relotively low official funding needs — even if not as low as the Government projects — and by the fall in US hond yields.

One factor that would surely have enapped such a brittle market in former times bounced off it harmlessly last week: news of a 2 per cent monthly rise in sterling M3 money supply, taking its annualised growth rate over three months to over 20 per cent. Bank lending rose £1.9bn.

Prices actually rose on the news, because there had been rumours of even higher figures. The impact was also muted by a thorny interpretation problem. Many in the market believe, however, that in the absence of an official target, gilts will not be able to ignore euch growth for long.

Alexander Nicoll

FT/AIBD INTERNATIONAL BOND SERVICE

US DOLLAR STRAIGHTS	Issued	Price	Chg. on week	Yield
AHFC D/B Fin 11¾ 94	100	107½	+0⅛	10.31
AIOC 11 89	75	104⅛	+0⅛	9.21
AIOC 11⅝ 90	100	101⅛	0	11.41
Amer Savings 12 89	125	104⅜	+0⅞	10.23
Amer Savings 12¼ 89	100	105⅜	+1	10.26
Asian Dev Bk 11¾ 93	100	108⅜	+1¼	10.08
Australia 11¼ 90	100	109⅛	+0⅛	0.84
[illegible]				
Ontario Hydro 11⅝ 90	200	108⅛	+0⅜	9.25
Ontario 12¼ 94	250	116⅛	+1½	10.03
Pacific Gas & El 12 00	75	107⅞	+1⅛	10.89
Penney J C 11¾ 90	100	104⅞	+0⅜	10.52
Penney J C 12¾ 91	100	105⅞	+0⅜	10.54
Philips Petrol 14 89	200	103⅞	+0⅜	12.73
Postipankki 11½ 90	75	103⅞	+0⅜	9.93
Post-Och Kred 13½ 87	50	106⅛	+0⅜	8.11
Privatbanken 12⅜ 96	100	99	0	12.92
Prudential Ins 12⅜ 87	150	106½	+0⅜	8.72
Pru Rlty Secs 0 99	385	29	+0⅜	9.92
Pru Rlty Secs 11½ 92	388	106⅛	+0½	8.96
Pru Rlty Secs 12¾ 95	546	110⅞	+1	10.16
Quebec Prov 12¾ 94	160	110⅜	+1½	10.10

	Issued	Price	Chg. on week	Yield
Queensland Cvt 11¾ 89	100	106⅞	+1	9.25
RBC 12¾ 86	100	102	0	−0.34
Rural Bk Aust 12 91	60	106⅜	+0⅛	10.58
Sanwa Bank 11⅞ 92	150	108⅜	+1⅞	9.64
Saskatchewan 10⅝ 92	100	105⅜	+1⅛	9.49
Saskatchewan 10⅜ 90	125	106⅛	+1⅛	9.93
Saskatchewan 11⅞ 89	100	108⅜	+0⅞	8.15
Saskatchewan 15 92	150	122	+0½	10.25
Saskatchewan 18 88	125	119⅞	+1½	9.21
[illegible]				
TVO Power ¼ 94	100	98½	0	8⅝
Union Bank-Norw ¼ 99	60	99	0	8⅞
United Kingdom 0 92	2.5bn	99⅞	0	[illegible]
Wells Fargo MM ¼ 96	50	99½	0	8⅛
World Bank [illegible] 94	250	98⅞	0	7[illegible]
Yorkshire Int ¼ 94 £	75	100⅛	0	11⅛

CONVERTIBLE BONDS	Issued	Price	Chg. on week	Prem.
Ajinomoto 3 99	120	127⅞	+2⅛	
Best Denki 5⅞ 97	15	179	−9⅞	−8.63
Canon 7 97	60	234⅜	+6½	−8.10
Daiwa Secs 5½ 99	60	220	+9⅜	−1.64
Dev Bank Sing 5½ 98	70	72	0	11.61

	Issued	Price	Chg. on week	Yield
Eldara 11¾ 94	180	103	−4⅛	15.35
Elektrowatt 5 96	52	129⅜	+5⅛	−1.27
Fujitsu 3 89	180	110⅛	+9⅜	1.27
Intec Inc 0 88	50	104	+6½	−4.36
Kumagai Gumi 3½ 00	80	176⅞	+5⅛	−0.22
LASMO 9⅞ 99	44	105½	+10⅛	45.28
Moet-Hennessy 7 89	50	139⅛	+2	−3.80
Murata Mfg 3⅛ 00	100	131	+0⅛	7.85
Nippon Oil 3⅛ 99	90	99⅛	+2⅜	4.63
Ono Pharm 3⅞ 88	90	99	+1½	−10.06
Pac Can Corp 4⅞ 94	87	143	+2⅞	112.70
Sumitomo Corp 2⅞ 89	70	140⅜	+7⅜	0.71
Texaco Capital 11⅞ 94	1bn	97½	−2⅛	88.10
Texaco Capital 11⅞ 94	500	98⅛	−1⅛	—
Tsugami Corp 3⅛ 00	20	94	+4	−1.17
Yamaichi Sec 3⅛ 95	20	169	+12	−2.56

YEN STRAIGHTS	Issued	Price	Chg. on week	Yield
Asian Dev Bk 7⅛ 94	15	103½	0	6.82
Avon Products 6⅛ 91	26	99⅞	0	6.78
Denmark 6⅜ 92	20	100	+0⅛	6.75
Dow Chemical 7 94	60	102⅜	+0⅛	6.60
EDF 6⅞ 95	20	101⅛	+0½	6.87
[illegible]				

BOND WARRANTS	Expiry date	Price	Chg. on week	Ex. yield
Aegon Ins 11½ 91	14/2/88	45⅞	+2	10.17
Coca Cola 11½ 91	28/11/88	60½	+3⅛	11.08
Commerzbk 13⅛ 91	17/7/88	122⅞	+8⅛	10.67
Du Pont 13⅛ 89	25/8/85	55⅞	+3⅛	10.00
Ekaportfinas 100 89	15/9/87	97⅞	+4½	9.96
Gen Elec 10⅝ 91	7/8/87	84⅞	+5⅛	10.64
Ind Bk Jpn 12⅞ 91	5/10/89	100½	+8	10.46
Inv In Ind 10⅝ 91	1/12/88	75	−10	10.15
McDnlds F 11¼ 94	5/1/89	60½	+4	8.99
Oester Lnbk 13½ 88	3/8/87	96⅞	+3⅛	10.15
Texaco Cop 10⅛ 99	1/6/87	49⅛	+1	11.73
Tmro Dom 12⅛ 91	5/4/88	86⅞	+6⅛	10.44

STRAIGHT BONDS: Yield to redemption of the mid-price. Amount issued is expressed in millions of currency units except for yen bonds, where it is in billions.

FLOATING RATE NOTES: U.S. dollars unless indicated. Margin above six-month offered rate (‡ three-month; § above mean rate) for U.S. dollars. C.cpn=current coupon.

CONVERTIBLE BONDS: U.S. dollars unless indicated. Prem=percentage premium of the current effective price of buying shares via the bond over the most recent share price.

WARRANTS: Equity warrant prem=exercise premium over current share price. Bond warrant ex yld=exercise yield at current warrant price.

† Perpetual.

Closing prices on December 13.

UK COMPANY NEWS

Rights issue part of £30m package for Telegraph

By Lucy Kellaway

MR. CONRAD BLACK, the Canadian busioessman, is to take cootrol of the Daily Telegrapb through a £30m refinancing package that will inclnde a £5.6m rigbts issue and a £14.4m issue of new sbares al 50p a share to Hollinger, a quoted Canadian company cootrolled by Mr Black.

The terms of the rights issus, which has been fully underwritten by Hollinger, are three new ordinary shares for every four ordinary or preferred ordlnary shares at 50p. Rights will be offered to all shareholders other than The Telegrapb Newspaper Trust, which bolds the Berry family shares, the Ravelstoo Corporatioo and Hollinger. As a part of the agreement, Hollinger will buy enough shares from the Tolegraph Newspaper Trust to take its holdings to over 50 per cent.

The 50p thal Hollinger is paying for the shares compares with 140p at which tha Telegraph raised £30m in April through its issue of preferred ordinary sbares, which will not get a atock market quote for at least five years.

The refinancing package will also contain a £10m bank loan facility. The money is needed to complete the modernisation of the newspapers, in particular to set up new printing plant in London Docklands and in Manchester.

A. Cohen

Exchange rates and market conditions provod to have a much worse than expected 'affect on non-ferrous metal ingol maker A. Cohen & Co. And profit before tax for tha first half of 1985 has been halved lo £555,000.

However, tha second half has shown a return to more normal trading conditions.

Heavy rainfall causes loss for A Monk at midway

The impact of the extremely wet summer has pushed building and civil engineering contractor A. Monk and Company ioto a loss of £419,000 at midway. This has reduced the company's earlisr sxpsctations for tha full year, but it bopes to produce e positive result.

In view of this, and ths strong balance sheet, ths directors are holding the ioterim dividend nt 2p net per share. A recommendation regarding the final will be taken in the light of the year's results.

In the half year ended August 31 1985, turnover advanced by £23m to £73m, bul there was a £1.12m downturn to a loss of £918,000 in operating profit. Interest received and similar income of £499,000 (£447,000) reduced that to a loss of £419,000 pre-tax (profit £649,000).

The directors explain that the company'e work is organised to maximise outpul during the summer, and the effect oo operations of three months of abnormally heavy rainfall was particularly marked. And to maintain progress during that period, substantial costs had to be incurred which led to the losses.

Much better progress has been made in lata September and October, particularly on road contracts, n oumber of which have been substantially completed; but the last quarter is the company's period of inw activity on site. Turnover in the second half is not expected to match that now reported, but should approach the level attained in the comparable period last year.

Associated Tunnelling benefited from the ending of the miners' strike and is expected to increase turnover in the current year. Management contracting and housing development are making a contribution towards better results, and the completed property developments will make a useful contribution next year.

After a tax credit of £155,000 (charge £292,000) net loss for the half year came out to £264,000 (profit £357,000) for a loss per share of 2.4p (earnings 3.3p).

C & S chairman is replaced

BY FRANK KANE

LORD EDEN OF WINTON, a former Conservative cabinet minister, is to step down as chairman of Central & Sheerwood, the engineering company recently saved from receivership by an unusual refinancing deal with the Midland Bank.

It was decided at a board meeting last Friday that Lord Eden *will be replaced* by Mr David James, currently deputy chairman and chiof executive, with effect from next March. Lord Eden will remain with the company as a non-executive deputy chairman.

Last September, C & S agreod a *capital restructuring* package with the Midlend whicb released it from e liability of around £17m and which could give the bank a stake of 29 per cent in the company.

Lord Eden stressed that the appointment of Mr James was made on the company's own initiative, and bad heen fully supported by the group's bankers.

"It seems e good moment to make a change which we have contemplated for some time," he said, "and gives me the opportunity to pick up some threads ontside." Lord Eden is also a director of Associated Book Publishers and chairman of Group Five Holdings, the developer of the Wonderworld theme park in Corby, Northants.

Mr James, 48, has something of a reputarion as an industrial troubleshooters, especially since his days as managing director of Rank Audio Visual. He has played a ceotral role in the restructuring of C & S, and in his new position as chairman will continue to have overall responsibility for reducing the group's borrowings, which currently amount to £17.5m.

Mr Michael Bradford, at present managing direclor of the C & S subsidiary Ransomes and Rapier, which was at the centre of the recent agreemenl with the banks, also joins the new board.

Higher terminal bonuses from Life Association

HIGHER terminal bonuses for mosl with-profit claims in 1986 have been declared by Life Association of Septland Group, the Scottish life company within the major Dutch insurance group, Nationale Nederlanden. Howevr, reversionary honus rates for 1985 remain unchanged, following the 1985 valuation.

Thus the reversionary bonus ratc oo the main life and pension contracts remains al £4.75 per cenl of the basic benefit, and £5.75 per cent of attaching boouses, while for all other with-profil contracts under the compound series, the rate is £4.50 of the basic benefit, and £5.50 per ceol of attaching hoouses.

On the closed simple bonus series, the reversionary bonus rate remains at £6 per cent of tho basic benefit. However, the terminal bonus rate is increased from 75 to 100 per cent of attaching bonnses.

On the compound series, the oew terminal bonus rate for pension contracts will be 40 per cent plus 4½ per cent for each year in force—previously, the maximum rate was 60 per cent—apnlled to attaching bonuses.

For assurances, the rate is 35 per cent plus 4 per cent for each year in force. These rates apply providing the contract bas beeo ln force at least five years et the time of the claim. Lower rates apply for shorter durations.

Radio Clyde profit falls by 46%

THERE WERE contrasting experiences for two of the major independent radio stations during the past year. Piccadilly Radio in Manchester saw profits rise by 8.5 per cent, but from similar turnover Radio Clyde in Glasgow suffered a fall in pre-tax profits of 46 per cent.

On turnover down from £4.33m to £4.26m, Piccadilly reported an increase in pre-tax profits for the year to the end of September 1985 to £484,000, against £446,000. Radio Clyde, however, on turnover in the same period of £4.09m (£5.14m) had pre-tax profits down from £624,000 to £336,000.

Piccadilly is raising its total paymenl to 2p (1.875p) on the non-voting ordinary and to 4p (3.75p) on the "A" with recommended final payments of 1.125p (1p) on the non-voting and 2.25p (2p) on the "A." Stated earnings per 5p non-voting shares was 2.7p (2.2p) and per 10p "A," 5.4p (4.4p).

Radio Clyde, despite earnings per share falling from 6.7p to 3.4p, is maintaining the total payment at 3.25p with a proposed unchanged final of 2p.

Both stations suffered from the fall in national advertising revenue.

Piccadilly reported at the interim stage that it had reacted by strengthening its local selling team and working hard on marketing among north-west busioesses and advertising agencies, which helped to sustain revenue.

In the present year Clyde has seen signs of a modest recovery in advertising revenue. Local revenue is expected to be 8 per cent up on last year's first quarter and national revenue saw slight growth in November and December is already showing e substantial improvement.

Both companies have their shares traded on the USM.

Pyke favours Hillsdown

The directors of Pyke Holdings have come down firmly in favour of sticking to the £17m agreed offer from Hillsdown Holdings and rejecting the teoder offer for 28.5 per ceot of Pyke from Glen International.

Glen, the financial services group, bad thrown lbe Hillsdown offer loto some confusion and the Pyke directors bad been counselling a "wait and see" positioo.

Bnt the relsase of the formal terms of Hillsdown's offer (15 of its own shares for every 7 Pyke shares) was nreceded by a full recommendation from the Pyke directors which rejected ths Glen tender.

Mr Peter Garner, the Pyke chairman, said Pyke and Hillsdown could become a "nowerful and highly competitive force" in the food industry.

"If you decide to accepl the tender offer you are risking the failure of the Hillsdown offer which your directors and their advisers, Laurie Milbank, consider to be fair and reasonable."

Woodhead shows £0.5m profit

THE TURNROUND achieved by Jonas Woodhead & Sons in the first quarter has continued through tbe half year ended September 30, 1985, and bas resulted in a pre-tax profit of £540,000. This compares with a loss of £325,000, whicb had ruo up to £1.18m by the eod of 1984-1985.

The group specialises in the manufacture of vehicle suspensions. Its sales for the period came to £27.47m (£30.33m) and operating profit to £1.15m, against £345,000. Last year's sales inclnded those of the shock absorber division which was disposed of recently as the first stage of a gronp restructuring programme. *Excluding those,* group sales were up by some 6 per cent.

Mr E. S. Simpson, chairman and chlef executive, says the elimination of losses at the shock absorber division will be reflected in the full accounts.

SHARE STAKES

CHANGES in company share stakes announced over the past week include:

Lincroft Kilgour Group.—Mr M. H. Dresner, a director, has purchased 200,000 ordinary (4.38 per cent) in the company from Mr P. J. de Savary at 185p per share. This brings Mr Dresner's lotal holding to 420,000 shares (9.19 per cent).

Mr P. J. de Savary no innger has a notifiable interest in the ordinary sbare capital.

Campari Intl.—Mr R. Black, a director, sold 25,000 shares at 38p on December 11.

S. Simpson.—Between December 2 and 5, chairman Mr J. P. N. Mengers sold his holding of 43,198 "A" (non-voting) ordinary shares and purchased 29,000 ordinary shares.

Scantronic.—Mr D. Lineham, a director, sold 25,000 ordinary shares on November 18.

Rosehaugh.—Mr T. J. Nardecchia, a director, disposed of 45,000 ordinary shares at 353p on December 12 and is now interested in 150,000 ordinary shares.

Ecobric—Mr W. Marais, a director, sold 25,000 ordinary shares at 14p on November 12 and 25,000 at 14p on December 13.

Alphameric—Mr I. L. Craig-Wood, a director, has disposed of 60,000 shares at 131p and now bolds 1,276,803 shares (9.1 per cent).

Petranol—Mr C. J. Smith, chairman, has purchased 50,000 shares.

LADBROKE INDEX
1,110-1,114 (+2)
Based on FT Index
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FINANCIAL TIMES STOCK INDICES

	Dec. 13	Dec. 12	Dec. 11	Dec. 10	Dec. 9	Dec. 6	1985 High	1985 Low	Since Compilation High	Since Compilation Low
Government Secs.	83.15	83.16	82.74	83.81	83.14	83.38	84.57	78.02	127.4	49.18
Fixed Interest	89.06	88.84	88.68	88.68	88.84	90.07	90.38	82.17	150.4	50.53
Ordinary	1105.9	1104.8	1103.7	1115.7	1115.4	1117.8	1146.9	911.0	1146.9	49.4
Gold Mines	260.6	264.2	267.7	263.0	268.3	275.2	536.9	237.9	734.7	43.5
FT Act All-Share	669.76	668.65	667.71	673.45	674.75	679.00	702.06	581.88	702.06	61.58
FT-SE100	1381.4	1378.5	1377.4	1383.5	1382.2	1401.5	1455.5	1206.1	1455.5	986.8

F.T. Share Information

The following securities have been added to the Share Information Services:

AMS Industries (Sectioo: Electricals)

Ealing Electro-Optics (Electricals)

InfraRed Associates Inc (Industrials)

Limoges Porcelain (Industrials).

Over-the-Counter Market

Capitalisation £000's	Company	Price	Change on week	Gross div.(p)	Yield %	Actual P/E	Fully taxed P/E
4093	Ass. Brit. Ind. Ord.	120xd	—	7.3	6.1	7.4	8.9
—	Ass. Brit. Ind. CULS	140	—	10.0	7.1	—	—
3876	Airsprung Group	67	+4	6.4	9.6	11.2	14.6
875	Armitage & Rhodes	38	—	4.3	11.3	4.4	5.5
53312	Bardon Hill	168xd	+2	4.0	2.4	21.0	21.8
2973	Bray Technologies	54	+1	3.9	7.2	5.6	7.5
497	CCL Ordinary	142	—	12.0	8.5	5.8	7.9
1275	CCL 11pc Conv. Pf.	102	—	15.7	15.4	—	—
6959	Carborundum Ord.	82	—	[illegible]	[illegible]	5.7	9.0
658	Carborundum 7.5pcPf.	94	—	10.7	11.4	—	—
4530	Deborah Services	58	—	7.0	12.1	6.0	7.9
3034	Frederick Parker	21	—	—	—	—	—
1310	George Blair	71	—	—	—	2.8	5.3
2274	Ind. Precision Castings	58	+3	3.0	5.4	14.5	12.4
13940	Isis Group	115	+1	13.0	6.6	13.5	20.1
5632	Jackson Group	112	+2	6.5	4.8	7.5	7.5
36272	James Burrough	276xd	-1	15.0	9.4	8.7	8.7
3296	James Burrough 9pcPf.	95	—	12.9	13.5	—	—
7816	John Howard & Co.	33	—	5.0	6.6	6.0	6.8
3240	Lingnaphone Ord.	180s	—	—	—	6.6	6.9
—	Lingnaphone 10.5pcPf.	90s	—	15.0	16.7	—	—
19908	Minihouse Holding NV	576	—	5.8	1.2	25.1	22.9
714	Robert Jenkins	80	—	—	—	20.0	—
1260	Scruttons "A"	31	—	—	—	—	7.9
1248	Torday & Carlisle	198	—	6.0	7.5	3.4	6.8
1423	Trevian Holdings	325xd	-5	4.3	1.3	18.5	18.2
6437	Unilock Holdings	77	+3	4.3	5.6	11.7	10.8
16024	Walter Alexander	125	+4	6.6	5.3	13.1	8.9
4666	W. S. Yeates	200	—	17.4	8.7	5.7	5.8

s = Suspended.

RECENT ISSUES

EQUITIES

Issue price p	Amount paid up	Latest Renunc. date	1985 High	1985 Low	Stock	Closing price p	+ or –	Net dividend	Times covered	Gross yield	P/E ratio
180	F.P.	15/1	215	195	Abbott Mead Vickers	200	+2	[illegible]	[illegible]	[illegible]	[illegible]
135	F.P.	[illegible]	195	183	Ashley (Laura) 5p	184	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
587	[illegible]	[illegible]	[illegible]	[illegible]	Cable & Wireless 50p	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

FIXED INTEREST STOCKS

Issue price £	Amount paid up	Latest Renunc. date	1985 High	1985 Low	Stock	Closing price £	+ or –
97.20	£25	[illegible]	24½	24	Allied Lon. Props. [illegible]	24½	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

RIGHTS OFFERS

Issue price p	Amount paid up	Latest Renunc. date	1985 High	1985 Low	Stock	Closing price p	+ or –
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
187	F.P.	6/1	234	211	Wedgwood	234	[illegible]

Renunciation date usually last day for dealing free of stamp duty. *b* Figures based on prospectus estimates. *g* Assumed dividend and yield. F Forecast dividend cover on earnings updated by latest interim statement. H Dividend and Yield based on prospectus or other official estimates for 1986. *u* Forecast, otherwise indicated. ¶ Issued by tender. ‖ Offered holders of ordinary shares as a "rights." ** Issued by way of capitalisation. § Placing price. §§ Reintroduced. ¶¶ Issued in connection with reorganisation merger or takeover. ‖‖ Allotment price. ¶¶ Dealt in under Rule 535 (3). ♥ Dealt in under Rule 535 (4) (a). [illegible] Units comprising five ordinary and one warrant. * Units comprising 12 preferred shares and one warrant.

PENDING DIVIDENDS

Dates when some of the more important company dividend statements may be expected in the oext few weeks are giveo in the following table. The dates shown are those of last year's announcements except where the forthcoming board meetings (indicated thus*) have been officially notified. Dividends to be declered will not necessarily be at the amounts in the column headed "Announcement last year."

	Date	Announcement last year		Date	Announcement last year
AE	Dec 16	Final 2.5	*Land Merchant Securities	Dec 19	Interim 0.7
*Associated Newspapers	Jan 9	Final 8.5	Magnet and Southerns	Jan 10	Interim 2.0
Berisford (S. and W.)	Jan 17	Final 7.0	Ratners	Jan 11	Interim 0.67
Davy Cpn.	Jan 17	Interim 1.1	*Rothschild (J.)	Dec 17	Interim 1.5
Dixons	Jan 17	Interim 1.92	Scot and Newc Breweries	Dec 17	Interim 1.9
Dowty	Jan 17	Interim 2.2	Stead and Simpson	Jan 11	Interim 2.0
Electronic Rentals	Jan 10	Int. 1.1667	Thorn EMI	Jan 10	Interim 5.0
Gestetner	Jan 18	Final 1.171	Trusthouse Forte	Jan 16	Final 3.615
*Grand Metropolitan	Dec 15	Final 6.5	Westland	Dec 15	Final 5.25
Guinness (A.)	Jan 15	Final 4.62			
Guinness Peat	Jan 9	Final 0.8			
Hunting Gibson	Dec 12	Interim 0.20			

* Board meeting intimated. † Rights issue since made. ‡ Tax free. § Scrip issue since made. ¶ Forecast.

The Guinness Peat offer: four good reasons to say no.

NO 1.

The offer represents a price earnings multiple of only 9.3.

NO 2.

The offer would reduce shareholders' dividend income by almost 20%.

NO 3.

The offer is below the current market price.

NO 4.

The offer ignores our 1985 forecast of total profits of at least £27m.
It is simply an attempt to buy Britannia Arrow on the cheap.

Britannia Arrow

Sign nothing. Reject the offer.

No 1 IS BASED ON THE CASH ALTERNATIVE OF 130p AND BRITANNIA'S FORECAST TOTAL EARNINGS PER SHARE FOR 1985 OF AT LEAST 14p.
(THE DOCUMENT INCORPORATING THIS FORECAST WAS POSTED TO BRITANNIA SHAREHOLDERS ON 13TH DECEMBER 1985; FURTHER COPIES ARE AVAILABLE FROM BRITANNIA ARROW HOLDINGS PLC AT 80 COLEMAN STREET, LONDON EC2).
No 3 IS BASED ON THE MIDDLE MARKET QUOTATION AT THE CLOSE OF BUSINESS ON 11TH DECEMBER 1985.

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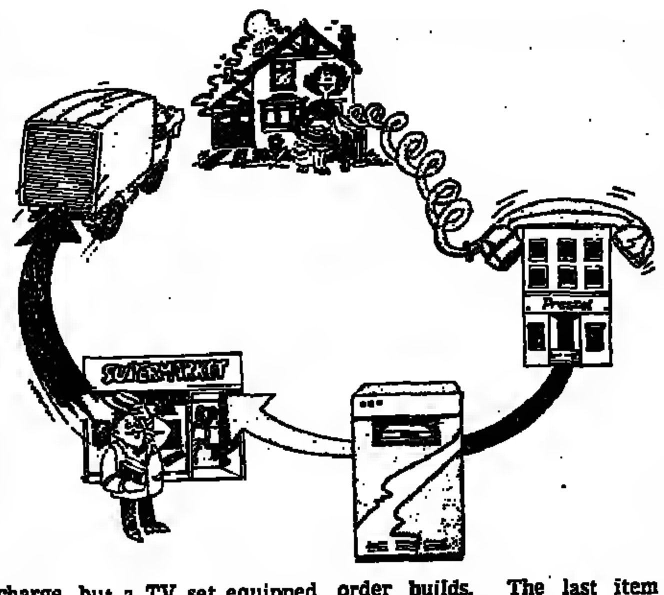
TECHNOLOGY

EDITED BY ALAN CANE

Geoffrey Charlish reports on a big city teleshopping project

Prestel brings back the grocer's 'boy'



THOSE OLD enough will remember the pre-war "grocer's boy" who would deliver your weekly groceries in o wicker-basket from the front of a heavy-weight bicycle.

Those days are coming back, with the difference that the cycle becomes a delivery van and the bousewife goes nowbere near the shop, using instead a keyboard and television set to order from an "electronic supermarket."

Telecard Holdings, whicb raised £600,000 in a recent over-the-counter flotation, is joining *Lalani Foods, the supermarket* cbain, to bring a Prestel-based supermarket "tele-shopping" service, complete with same-day delivery, to five London boroughs. More than 3,500 items will be on offer.

The service, Telecard Supershop, goes on line before Christmas. It is thougbt to be the first commercial big city supermarket service based on a national viewdata system, although both Gatesbead and Bradford councils are operating RDCC Computers systems in private viewdata supermarket schemes. These, bowever, are aimed at the disadvantaged and are run as o soaial service.

In addition, Littlewoods, the Nottingbam Building Society, Great Universal Stores and others have telesbopping and mail order services.

The Telecard move could be a turning point for Prestel, which until now has mainly carried services that appeal to segments of the population like software buffs or investors.

Prestel got off to a shaky atart in the mid-70s when it was wrongly assumed that large numbers of bouseholders would connect tbeir television sets—at considerable expense—to interactive *information* services over British Telecom lines.

Most people stuck to Corooation Street and Prestel turned instead to the business community and other specialist groups, where there bas heen considerable success, particularly in the travel trade. Mr Graham Jones, general manager, says that 1985-86 will be Prestel's first profitabla year.

Prestel sbould not be confused with teletext, which simply sends text, numbers and rudimentary grapbics one way over the air using the two television transmitler networks, without interfering with the programmes. There is no charge, but a TV set equipped with teletext decoders is oeeded.

Prestel works hoth ways over o phone line, allowing the user to react to what be sees and send instructions or data bark to the controlling computer. He asks for specific information to be sent to bim and may have to pay for lt.

With Telecard Supershop, the user simply dials the service, enters an identity number aod password and then keys single *digits to obtain the pages that* give codes for routine products, special offers or now products. U'ben the shopper can bring up the ordering page and fill in the codes. Product name, size and price immediately appear.

The shopper enters the quantity for each item and is given an on-screen running total of wbat has been spent as the order builds. The last item ordered can always be amended and if something is out of stock an alternative is suggested by the computer, which the user may accept or reject.

If the order is placed between midnight and noon, it will be delivered during the same day, otherwise on the following day. Orders can be placed 28 days in advance. Tbey can also be placed from any Prestel atation outside the service area, provided delivery is within the area.

Delivery will be by radio-controlled vans operated by Moves, the London delivery service. Supershop customers pay the driver by cheque. Later direct-debiting systems will be *considered*.

The service is starting in the City of Westminster and the London boroughs of Camden, Kensington and Chelsea, Hammersmith and Fulham, and Wandswoth. It is believed there are already some 8,000 Prestel users, business and domestic, in the area, which contains a total of 360,000 households and about 12.8 per cent of London's resident population.

More to the point perhaps, is *the fact that* these *households* spend ebout £75 o week on food and drink, wheras the average for London is £46.

So Telecard has chosen its ground with care. If all goes well, expansion into a further nine London boroughs is planoed. followed by other parts of the UK.

The cost of entry and use is not thougbt to be o big stumhling block in the areas chosen. For those already on Prestel, the service is free apart from the cost of the phone call. Otherwise, o Prestel adaptor for the television set is needed, costlng £100. There is also a £26 annual Prestel subscription which will, of course, give access to all the other Prestel services at their appropriate *charges, if any.*

Mr John Caulcutt, chalrman of Telecard, believes prices of the goods purchased will not exceed those found in convenience stores (those open in the evenings), which might be 7 or 8 per cent higher than a normal *supermarket*.

Reaction by the higher income households of central London, where time is short, could be favourabla because much time and trouble could be saved, certainly for buying staple canned and packaged goods wbich are heavy and bulky. There is some doubt, perbaps, about such perishables as meat and vegetables.

Genetic 'fingerprint' may aid crime fighters

FORENSIC SCIENTISTS are excited by a new biochemlcal technique that could provide a foolproof way to track down criminals using traces of blood or other fragments of body material surh as bair or nail clippings.

In the technique, samples containing genetic material obtained from the scene of a crime are analysed to produce a pattern representing the concentration *of the different* compounds in the material. The pattern, whicb looks similar to a bar code of the type that appears on packaged goods, is specific to an individual.

Scientists could matcb a pattern obtained from a sample with a similar representation of genetic material from a suspect. In this way, researchers in forensic laboratories could obtain virtually unassailable evidence against criminals.

The technique originated with work by Dr Alec Jeffreys at Leicester University. Workers at the Home Office's forensic science service are testing the method.

Dr Vivien Emerson, deputy *director of the service's* central research establishment at Aldermaston, said the technique looked particularly promising. He said he boped it could be introduced as a routine part of the forensic service within a few years.

The method starts with the addition of certain enzymes (proteins which catalyse specific biochemical reactions) to a trace of blood or semen, or piece of human tissue such as akin. The enzymes split into small gene fragments the long strands of deoxyribonucleic acid (DNA) present in the sample.

The different components are separated by an electrophoresis technique. In this, fragments of *genetic material are* channelled in a solution past electrodes.

Depending on the electric charge on the fragments, they move in different paths and can be collected. At this point, radioisotopes are attached to different components in the sample to serve as radioactive "tags."

Measuring the radiation indicates the concentrations of particular DNA components obtained from the sample, a reading which is turned into a bar code by a pbotographic method.

Every person would have his *or her* own bar code which identifies the individual due to the specific nature of the original genetic material. In forensic work, the only time the technique would break down is if identical twins (whose DNA chains are the same) were suspected of the same criminal offence.

According to Dr Emerson, the chemical procedure to produce the bar codes is by no means easy.

The technique could, however, replace the standard method of detecting criminals by samples of blood. In this, scientists examine the liquid to see if it matches the blood group of suspects. The method provides no more than a general guide on the grounds that possibly hundreds of suspects could share the same group.

PETER MARSH

Assassin unlocks door to software technology

THE COMPLEXITY of the modern computer software market is well illustrated by the announcement last week that ICL, the UK-based computer manufacturer, is to market a powerful and well-regarded information retrieval package written by ICI.

Tha result will be that ICL mainframe users will have access to software technology hitherto available only to IBM and Digital Equipment (DEC) users.

The package, Assassin 6, is tha latest version of a package ICI created in the early 1980s and has been improving ever since.

It was designed to make possible the simple retrieval of information from unstructured *data. As long as the data ore* entered in o recognised electronic format—word processor output, for example—Assassin will file, organise, edit, annotate, send and retrieve them.

It uses o searcb technique called "inverted files" where *every section*, paragraph, senteoce or even individual words in a document can be Indexed so that they can be retrieved at high speed.

ICI originally wrote the package to assist its own technologists to find informotion in scientific databases. In Assassin 6, it has created a version directed towards commercial applications and with a host of features aimed at making it easy for lay people to use.

Mr Hector McLean, personnel and management services director for ICI's agricultural division—which encompasses Associated Knowledge Systems, the company ICI set up to market Assassin—said that the company could not hope to understand all the various commercial sectors which could make use of Assassin.

Earlier this year it signed a marketing agreement with Digital Equipment which could be worth £40m over five years. It has now signed a software agency agreement with ICL. The products are marketed by ICL's sales force to the mainframe customers in return for a 20 per cent commission on sales.

The conversion of Assassin to *run on ICL mainframes* under its flagship operating system VME (an operating system is a large computer program that controls the working of the computer) was carried out by Pinpoint, a small, specialised software house based in south London with expertise in data handling and analysis.

It already holds an exclusive llcence on DEC hardware for Assassin 6. As well as converting Assassin to ICL code, Pinpoint will provide first level support for users of the text retrieval package.

One of the principal aims of the venture is to make an impression on the local authorities in Britain. ICL has a significant share of this market both for hardware and software. Pinpoint has a long history of analyses and studies carried out for local authorities.

Mr Gurmukh Singh, Pinpoint's managing director, says the first local anthority to use Assassin under tha new arrangements will be Islington, already an ICL showpiece.

Assassin costs, typically, £32,000. There are some 40 Assassin 6 sites in the UK and more than 100 installations of all versions of the package.

ALAN CANE

Research chair sponsored

SCHLUMBERGER, oil-services and electronics concern, is to sponsor work in engineering software at Imperial College, London. The company *is* to pay £250,000 over five years to enable the college to recruit a professor to work in this area along with assistants.

The cash is coming from Schlumberger Measurement and Control, based in Guildford. Work at Imperial College will examine new software techniques for use in areas such as computer-aided testing, design and measurements.

Schlumberger recently opened a £20m research laboratory in Cambridge and has other UK development centres in Reading, Farnborough, Enfield and Ferndown.

Automatic information exchange

COMPANY TELEPHONE exchanges are still called PABXs, but a better title for the systems now emerging from the major manufacturers might be PAIX, or private automatic information exchange.

The latest offering from GEC Reliance for example, called iSLX, is able to support voice and data communications using digital networking. Advanced data facilities with IBM compati*bility are provided*, with integrated voice messaging, where stored, spoken messages can be heard by the called party when he returns to his office after an absence.

Making full use of the available standards, iSLX is *thought by GEC to be the* only PABX oble to support inter-site, local desk-to-desk and, in the near future, high speed local data communications.

The company is committed to the 64,000 bit per second *data channel standards*, but it realises that this is "simply too slow for many applications such as file transfer between workstations and minicomputers."

It is developing a system to work at 2.5m bits/sec, enabling its Mosaic intelligent workstations to communicate at high speed over normal telephone wiring. Then, such services as word processing, electronic mail, telex (and the higher speed teletex), business graphics and X25 packet transmission will become available.

GEC has also gone a long way to accommodata the IBM environment found in so many companies. For example a plug-in board allows the IBM PC and its compatibles to be connected to through the PABX and there is also a coaxial cable eliminator that links IBM 3178 and 3276 terminals to their cluster controllers over telephone wiring.

More on 0933 225000.

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FINANCIAL TIMES SURVEY

Monday December 16 1985

Defence Industries

The defence budgets of the major European governments are under pressure, and weapons are becoming much more expensive. Manufacturers are finding that collaboration to share costs is an increasingly important option.

Curbs start to bite

By Bridget Bloom

Defence Correspondent

WITH WORLD military spending now at some $900bn and rising, it may seem perverse thet the predominant theme these days among Nato governments—which account for some 40 per cent of that total— is the shortage of finance for defence.

Yet for the first time in nearly a decade, none of Nato's major European members, is likely to achieve the 3 per cent real increase in its defence budget that wes so confidently set as a target for the whole alliance in the last years of the US Carter administration.

A number, Britain included, will next year experience a decline in real terms in their defence hudgets. Even in the US, where defence spending is likely to go on rising over and above the prevailing rate of inflation for the foreseeeble future, the increases are already smaller than were planned only four years ago.

Inevitably in such a diverse alliance, the impact of more straitened financial circumstances on the armed forces and on the industries which supply them varies as do the national remedies which are being tried to mitigate them. In the US, for example, the cry is currently for reform of the organisation of defence, including the defence procurement system which bas made possible the much-publicised provision to the armed forces of $50 ashtrays and $450 claw hammers.

In France, where defence industries are mostly nationalised and a highly-coordinated procurement system prevails, major projects are being cut. In Britain, where there is much talk of the probability of "salami slicing" of the defence programmes to make ends meet over the next few years, there is renewed emphasis on the value of competition as a means of increasing defence efficiency.

Themes

Internationally, there are common themes. The US is *again putting pressure* on its European allies to do more in their own defence while within Europe, partly in response to these admonishments, there *has been* a *notable* attempt by defence Ministers to increase the joint production of weapons systems.

The reasoning is that such cooperation will reduce unit costs by sharing research and development costs and lengthening production lines. Beyond thet, however, there is talk of the rationalisation of defence industries. As the dilemma facing Britain's Westland Helicopters has shown, in Europe there are often too many manufacturers chasing too few orders against efficient US competition.

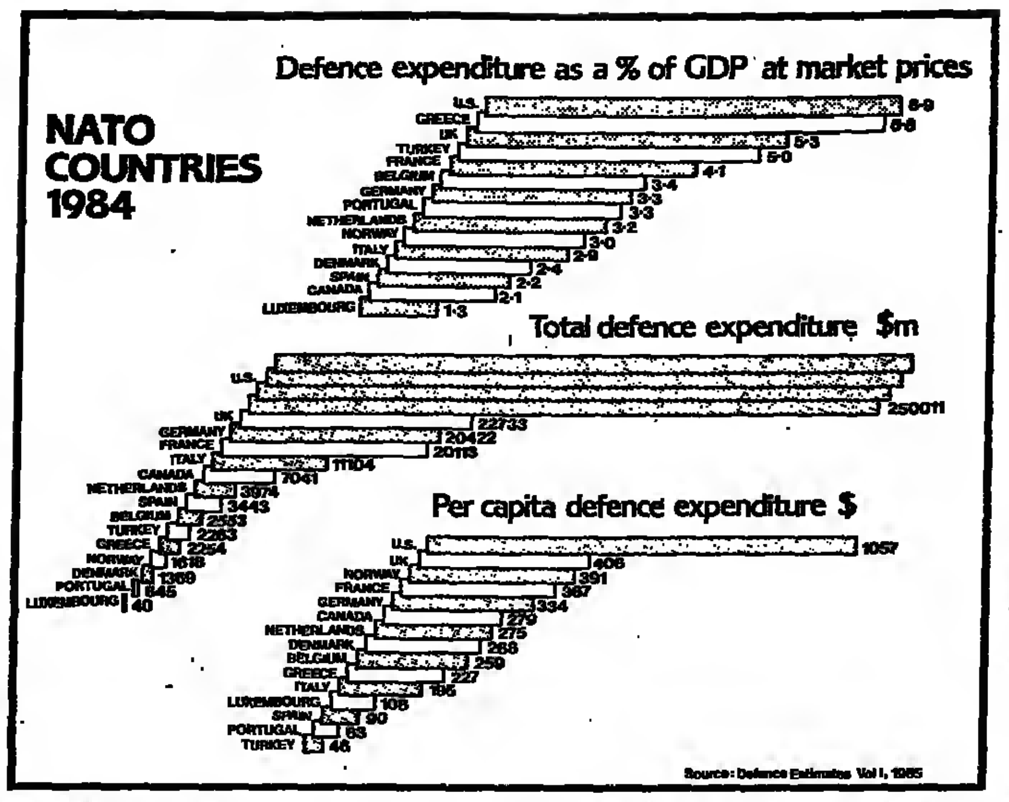
These trends are now quite widely accepted as legitimate areas of concern. Even if observers may disagree on bow serious the impact of the current financial constraints might be on Nato's military readiness, there are few who deny that for Europe's defence industries the next few yeers are likely to prove a critical period.

The reasons for the straitened financial circumstances within the 16-member alliance range from the effects of the recent recession, with governments now consciously *opting* to *shift* the emphasis towards social rather than defence spending, to problems specific to defence financing.

These include the increasing technological sophistication of weepons systems, as well as the disproportionate increase from generation to generation in the costs of defence equipment. In Britain, for example, e new "cheaper" Type 23 frigate is some 3½ times more expensive than the Leander class warship of the 1960s which it will replace.

In financial terms, the situation is most dramatic in Britain, where after seven fat years in which defence spending has increased in real terms by nearly 20 per cent, the government has decided to "level fund" the defence budget for at least the next three years. Even the Defence Ministry acknowledges that this will mean a decline in spending in real terms of more than 1 per cent: independent estimates suggests a decline of some 6 per cent by 1988-89.

Mr Michael Heseltine the Defence Secretary has set his face against a drastic defence review, hoping to make savings through tougher contracting terms, but it seems certain that many projects will be delayed as money gets tighter.



Source: Defence Estimates Vol I, 1985

France's 1986 bndget expects a modest increase of 1.7 per cent in real terms, but this *follows three years of virtual* stagnation and a spending squeeze is already heving its effect on major projects. Plans to plug a gap in the country's air defences hy the purchase of the US early warning aircraft AWACS have been scrapped, while the Army will get fewer tanks end belicopters than it expected.

Even France's nuclear deterrent is being affected, for while spending on its nuclear submarine fleet is being stepped up from 22 per cent to 34 per cent of the planned equipment budget next year (compared to Britain's estimated 11 per cent at its peak for Trident) plans to develop a new mobile strategic land-based missile look like being abandoned.

In Italy, where defence spending has long been a much lower proportion of GDP, the financial constraints are having a rather different effect. *Industry depends greetly* on its ability to generate exports, which now seem to bave peaked. One result is the beginning of rationalisation of the *country's* defence *industry* base..

Response

A similar shift is noticeable *in West Germany, with* arms producers becoming higger but fewer in response to pressures on the equipment budget which this year will increase by less than one per cent.

Europe's defence industries all depend heavily on arms exports; France was third in the world league table between 1979-83, with exports of $16.7bn. The UK ($9.5bn), West Germany ($6.6bn) and Italy ($4.7bn) respectively were in fourth, fifth and sixth places.

Both France and Britain have registered some impres*sive agreements in the past* few months to swell the 1985 totels —France is supplying 24 Mirage F1 fighters to Iraq and more recently, with the US company *GTE, beating a British-US con*sortium to a $4.3hn contract for army communications which over the next 20 years could be worth nearly $30bn. For its part, *Britain is negotiating* a mejor deal to sell Tornado and other military aircraft to Saudi Arabia which could be worth some £3-4bn.

The drive for exports, made more difficult in the past few years by the emergence of efficient third world producers like Brazil and Korea, will go on and will remain important for Europe's defence industries.

But the most marked cbange in the past year or two is the new emphasis which European politicians are placing on armaments collaboration as one way of lessening the impact of the declining resources nvailable for defence.

Arms collaboration, as sceptical industrialists point out, is not new in Europe, and its success has been only partial.

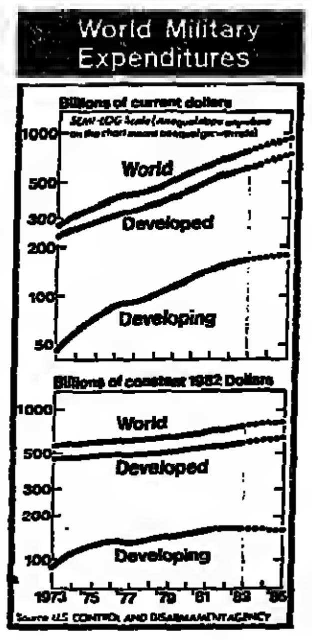
There bave been some marked successes, particularly in military avietion, as articles *elsewhere in this survey show.*

But the failure of France and the four EFA partners to agree on a common requirement for a new fighter, and the present competing plans for helicopter production hetween Europe's four manufacturers illustrate the distence still to he travelled even in aviation.

Elsewhere, there are some reasonably successful projects—the multi-launch *rocket system* (MLRS) is an interesting example of industrial consortia competing for a collaboretive project involving both European and the US *governments. But* there is also the disastrous self-propelled howltzer project, the SP 70. This is now, after nearly 20 years and expenditure of some *£250m* by Germany, Britain and Italy, about to be cancelled by the partner states.

The new impetus towards arms co-operation is intended to give collahorative policies greater coherence and more political momentum. Over the years, Europe bas gathered a plethora of Institutions designed to encourage arms collaboration, ranging from those within Nato itself, to the Western Europeen Union and the body now chosen as the prime vehicle, the Nato-affiliated Independent European Programme Group (IEPG) wbich involves all Nato's European members including France.

Over the past 18 months, IEPG Ministers have beld a series of meetings and drawn up a new charter on collaboration, defining a list of projects for fnture co-operation. The IEPG's guiding principles are that members must try to harmonise their requirements and timescales for new eqnipment, *thus making* it easier to *move* to common research and development programmes and ultimately to joint production.



The process is much easier to talk about than to carry through, as tbe EFA negotiations illustrate, but the Ministers' political interest is generally held to bave added dyna*mism* to the collaborative effort even if it has not yet resulted in new projects actually being started.

There is some proof of suc*cess* in developments *within* the hroader Nato context, where en effort is heing made to harness the new drive towards collahoration on a Nato-wide *basis. Lord Carrington,* Neto's Secretary-General, sees armaments collaboration as a critical element in the ellience's ettempt to improve its conventional defences—*itself part of* an effort to diminish Nato's early reliance on nuclear weepons in a future war. Lord Carrington hes been endeevouring to strengthen Nato's own machinery for planning the procurement of jointly produced weaponry—moves which ironically heve met with some resis*tance from* France, *Britain* and Germany.

Part of the European governments' objection comes from fears that Nato—involving the US and Canada as well as Europe—could undermine Europe's own effort in the field. European worries, rarely stated outright, are that if Nato

CONTINUED ON PAGE 2

Competition and spending clamps worry manufacturers

BY BRIDGET BLOOM

NEXT YEAR for the first time in almost a decade there will be no growth in real terms in Britain's defence budget.

Defence spending has increased by about 18 per cent in real terms since 1979. The Army and Royal Air Force have had major re-equipment programmes and the Navy has had restored many of the most painful cuts intended for its surface fleet.

But the defence budget will actually decline in 1986-87 by about 1 per cent in real terms, with similar falls due in the subsequent two or three years. As nearly half of the budget is spent on equipment, the impact on Britain's defence industries could well be uncomfortable.

Figures published in last month's autumn statement show that next year the budget will be £18.52bn while those for 1987-88 and 1988-89 are put at £18.82bn and £18.89bn. The Defence Ministry, forecasting inflation of about 4 per cent for next year and subsequently of 3.5 per cent and 3 per cent, accepts that this will mean a decline in real terms of just under 1 per cent for 1986-87, 1 per cent for 1987-88 and some 1.5 per cent for 1988-89.

However, the House of Commons Defence Committee last summer predicted a possible decline of 6 per cent in real terms for 1987-88, principally because it believes that the Defence Ministry's assumptions on inflation and exchange rates, as well as on pay, will prove unrealistic.

The Committee also noted the inevitable pressures on future budgets of generation changes in the prices of defence equipment: the new Type 23 frigate, designed to be simpler and cheaper than its predecessor, will still cost 3½ times more than a 1960s Leander frigate while the air defence version of the Tornado fighter-bomber will be 175 per cent more expensive than the earlier Lightnings.

Precisely what the declining defence budget will mean for industry in the coming year will be known only after Christmas, as detailed procurement budgets for the three services are agreed. Mr Michael Heseltine, the Defence Secretary, has taken a conscious decision to curb (he calls it level fund) defence spending. He hopes to mitigate its effects by a three-pronged drive to increase efficiency within the MoD.

This involves an attempt to induce greater competition in defence contracting, the privatisation or "contracting out" of areas of Defence Ministry or armed services' activity to private enterprise, and the encouragement wherever possible of collaborative or joint production of weapons systems between British and European industries.

Added to these measures is what Mr Heseltine calls flexible planning—effectively a refusal to commit funds to projects until it is obvious that they can be afforded.

He has set his face firmly against a defence review of the sort attempted by Sir John Nott in 1981, but has insisted that he will not cut back on any of the major roles Britain performs, such as fielding a large surface navy in the eastern Atlantic or maintaining up to 55,000 troops in West Germany.

Instead the Defence Secretary is expected to indulge in what his service chiefs call salami slicing—paring back the budget from year to year, delaying the start of major and minor projects and slowing down their implementation rather than cancelling them outright.

Such tactics are likely to prove troubling for Britain's defence industries, already smarting under the new competition policies which are being pursued with added vigour by Mr Peter Levene, formerly head of United Scientific Holdings, who was appointed by Mr Heseltine last March to be the new Chief of Defence Procurement.

Mr Levene is a firm believer in competition and a dedicated opponent of the system which governed so much of the MoD's business in the past—the so-called cost plus contract—where a contractor is paid his costs plus a margin for profit, virtually whatever the state of the project concerned.

The terms of existing cost plus contracts are already being toughened, including the most controversial, with GEC Avionics for the Nimrod early warning aircraft avionics system already three years behind schedule.

Mr Levene told the Public Accounts Committee last month that in the last year 62 per cent by value of all contracts had been placed competitively—compared to about 40 per cent a year or so ago and 25 per cent in the early 1980s.

Savings from the competition policy are so far largely unquantified, although in two large contracts recently publicised, competition brought fixed price contracts far below initial MoD estimates: some £30m was "saved" on a contract of about £160m for RAF training aircraft, and about £100m was "saved" on a £750m contract for armoured vehicles.

While industry has publicly welcomed the new emphasis on competition, there are fears that the government will become too dogmatic, particularly in relation to the competition policy and to that on collaboration which industry believes should be determined by market pull, not political push.

Especially disliked by industry is the MoD's decision in principle to open main production contracts to competition, rather than award them automatically to the company which has been responsible for development, as in the past.

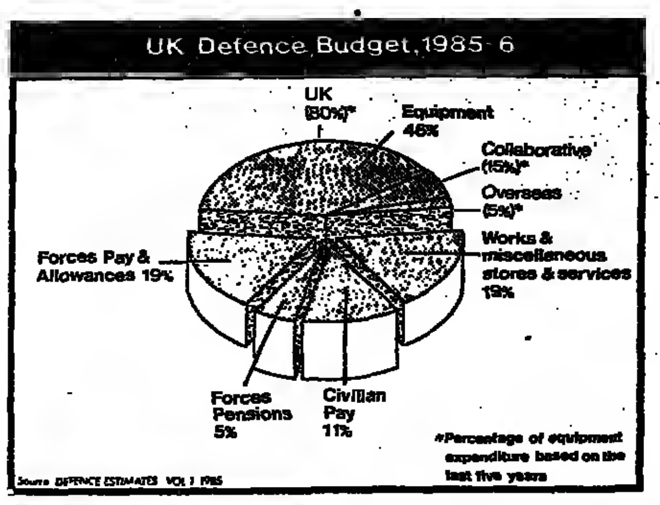
More broadly, industrialists point to a conflict between the new drive to encourage British companies to compete as "UK Ltd" in export markets, while at the same time opening up certain sectors of the UK market to foreign companies in the name of competition.

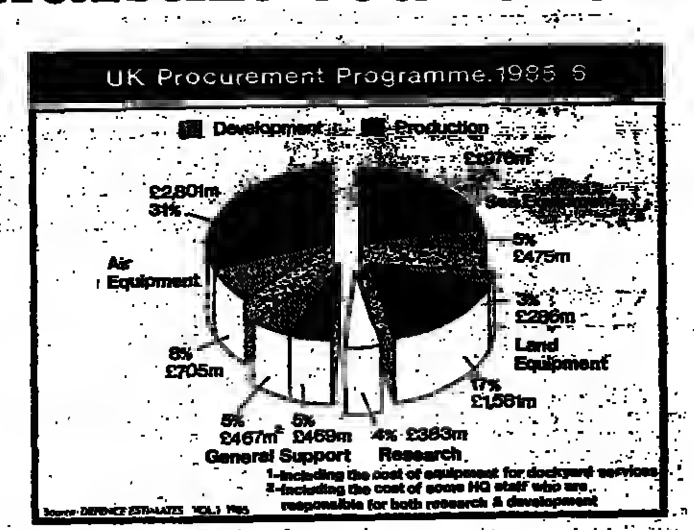
But the principal fear in industry is that the measures being applied by the Ministry will not be enough by themselves to tailor defence spending to the reduced defence budget and that despite Mr Heseltine's assurances more drastic action will be needed.

Over the next few years, for example, the Trident project with its high dollar content comes to a peak et the same time as funds must be found for the new European fighter aircraft, while decisions must be taken on whether or not to replace Britain's ageing amphibious landing ships.

A host of smaller but still key projects could also prove vulnerable, ranging from an impressive array of new weapons for the RAF to communications equipment for the Army.

In the prevailing gloom, however, one bright spot emerged from last month's figures. Spending on the Falklands, totalling £552m this year, will decline to £192m in 1988-89.





Michael Heseltine: he is firmly against a Nott-style review and is likely to delay projects rather than cancel them

The UK defence budget in detail

	Outturn 1979-80	Outturn 1980-81	Outturn 1981-82	Outturn 1982-83	Outturn 1983-84	Estimates *1984-85	Estimates 1985-86
	£m	£m	£m	£m	£m	£m	£m
Total expenditure†	9,178	11,182	12,607	14,412	15,487	17,033	18,059
Expenditure on personnel	3,912	4,556	5,058	5,455	5,726	5,957	6,271
Pay, etc, of the Armed Forces	2,099	2,460	2,728	2,914	3,076	3,195	3,390
Retired pay, etc, of the Armed Forces	459	503	624	680	777	831	906
Pay, etc, of civilian staff	1,354	1,593	1,706	1,861	1,873	1,931	1,975
Expenditure on equipment	3,640	4,885	5,638	6,297	6,939	7,796	8,355
Sea	1,110	1,513	1,624	1,730	1,849	2,222	2,451
Land	740	904	1,101	1,353	1,475	1,705	1,847
Air	1,427	2,059	2,458	2,640	3,057	3,304	3,505
Other	363	410	456	574	558	565	551
Other expenditure	1,625	1,741	1,910	2,659	2,822	3,280	3,433
Works, buildings and land	599	623	664	832	1,067	1,258	1,441
Miscellaneous stores and services	1,026	1,118	1,246	1,827	1,754	2,022	1,992
Total expenditure at constant (1975-76) prices	5,243	5,421	5,498	5,832	5,914	6,270	6,252

* Figures derived from the original Supply Estimates for 1984-85. Current forecast outturn at constant 1975-76 prices is £6,169m.
† Outturn and Estimates given at outturn and estimates prices respectively.

Source: Defence Estimates Vol 2 1985.

MOD payments to UK-based contractors

(payments of £5m or more for equipment in 1983-84)

More than £100m
British Aerospace (Aircraft)
British Aerospace (Dynamics)
British Shipbuilders
Ferranti
General Electric
Plessey
Racal Electronics
Rolls-Royce
Royal Ordnance Factories
Thorn-EMI
Westland

£50m-£100m
Austin Rover Group
Dowty Group
Hunting Associated Industries
Philips Electronic and Assocd. Industries

£25m-£50m
General Motors
Lucas Industries
Marshall of Cambridge (Enrg.)
Pilkington Bros
Short Bros
Smiths Industries
United Scientific Holdings
Vickers

£10m-£25m
Acrow
British Electric Traction Co.
BTR
Cable and Wireless
ICL
ITM Offshore
Northern Engineering Industs.
Oerlikon Buerle Holdings
Cossor Electronics
Cambridge Electronic Industs.
Dunlop Holdings
Flight Refuelling (Holdings)
Guest Keen and Nettlefolds
Harland and Wolff
Hawker Siddeley Group
Remploy
Singer Co. (UK)
STC
The Throgmorton Trust
UKAEA
Weir Group

£5m-£10m
BICC
B. Thompson
Engelhard Industries
Ferguson Industrial Holdings
Goodyear Tyre and Rubber
Gresham Lion
Louis Newmark
MacTaggart Scott (Holdings)
Portsmouth Aviation
Rank Organisation
RCA
RFD
Saft (UK)
Schlumber Measurement and Control
Siemens
S. Pearson and Son
Systems Designers Internatnl.
Thomas Tilling
Vantona Group
Western Scientific Instruments
Wilkinson Sword Group
Yarrow

Source: Defence Estimates Vol 1 1985.

CONTINUED FROM PAGE ONE

is made the major focus for collaboration, Europe's industries will again find themselves playing second fiddle to more powerful US companies. A generally unstated but critical aim of European defence Ministers is that collaboration within Europe should strengthen Europe's industries' chances of competing with the US.

The so-called two-way street issue has been a sensitive one for many years, as successive efforts to improve the imbalance in defence trade between the US and Europe have met with only patchy success. Over the last decade or so the US has on average sold seven times more defence equipment to Europe than it has bought from it.

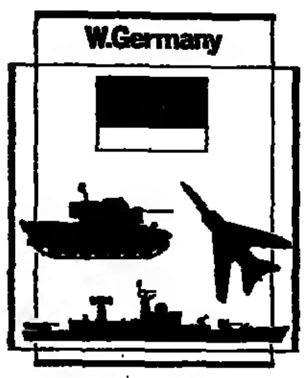
Today efforts are again being made in Washington to correct this state of affairs. Mr Caspar Weinberger, the US Defence Secretary, recently sent directives to the US armed forces' procurement authorities to examine collaborative projects to supply their needs where possible. In addition, two amendments to the 1985 Appropriations Bill, by Senators Nunn and Quayle, aim respectively to increase the number of common research projects between the US and Europe and to ease the legal restrictions on collaboration which are embodied in the US Arms Export Control Act.

It mey be a considerable time before the impact of Europe's current financial problems works through into a recognisable pattern for the Continent's defence industries. But a sign of times to come may well be found in a year-long study which has just been set up by the 13 IEPG defence Ministers.

Working with very little publicity, for obvious reasons given the subject's political and economic sensitivity, a dozen eminent industrialists and former diplomats are to recommend ways of rationalising Europe's defence industries. That seems bound to mean major changes as the industries themselves attempt to become more efficient and more competitive.

Defence Industries 3

Bonn eager to collaborate



BY PETER BRUCE

IF THE West Germans are as worried today as they were a few years ago by fierce US pressure on its allies to raise their defence spending a real 3 per cent a year, they hide it well. Bonn's defence budget, just over DM 50bn for next year, represents a real increase of under 2 per cent, but, says Mr Manfred Woerner, the Defence Minister: "We are all falling behind. Not only us, but the Americans themselves.

"I am not convinced it is a good measurement," he said during a recent interview. "I would not want to renounce it as long as I have no replacement but what we need are more detailed measurements, or more convincing yardsticks for effectiva combat power.

"What we are measuring with that 3 per cent is only the money we put in, not the output. I need DM 2.5bn nr DM 3bn less per year with my conscript army than I would with a professional army."

It is difficult to say how much of that saving finds its way into the hands of the West German arms industry which, though numbering up to 36,000 suppliers, is relatively immature, having had to start from scratch about 30 years ago.

One result is that Bonn is probably the most eager participant in the collaborative weapons projects that now dominate European defence procurement. Of total spending on arms, some 70 per cent involves at least one partner in another country and it is probably a safe bet that the other 30 per cent is concentrated in the hands of a very few chosen domestic suppliers.

The industry is itself being tested by a variety of forces. Mr Woerner himself is under very strong pressure from the Finance Ministry to hold spending down. Although a record DM 12.2bn has been allocated to procurement next year, it is a rise of only 0.9 per cent.

In addition, the Defence Ministry has begun to impose a strict valua analysis programme in its dealings with industry, saving between DM 50m and DM 60m a year nn practice ammunitinn, a one-off saving nf DM 100m after insisting on changes in the manufacture of sea-bed mines and a further DM 60m saving was achieved after deciding to stop ordering "military" cranes and simply buy standard commercial ones instead.

The lack of new technologies, which would otherwise encourage defence planners to find money for increased procurement, are often not available. Plans to build a new main battle tank to replace the Leopard II, by the end of this century are on tha backburner, says Mr Woerner, because no existing technology would so improve upon the present tank that it justifies the expense of setting up a new programme.

Cost cutting has also becoma a by-word in the major collaborative projects where manufacturers one relied on the politicians to be so keen not to damage a joint project (and therefore sour political relations between capitals).

The parliamentary budget committee in Bonn has recently frozen funds fnr the British, German and Italian SP 70 self-propelled howitzer because of disastrous cost over-runs and Mr Woerner says he is fighting to maintain tha nriginal cost ceiling on the Franco-German PAH-2 anti-tank helicopter being built by Messerschmitt-Bolkow-Blohm (MBB) and Aerospatiale. The French partner, he says, wants to lift the funding limit.

West German arms manufacturers are beginning to respond to these pressures, quite predictably, by deserting their individual fiefdoms and joining forces with each other. The arms producers are becoming bigger and fewer.

Dornier, the country's second biggest aerospace group after MBB, now belongs to Daimler-Benz, as does the electronics group, AEG, which does a sizeable business with the military. Daimler has also bought full control of MTU, tha country's largest jet engine maker, this year.

MBB itself sought to buy Krauss Maffei, prime builder of the Leopard II tank, earlier this year. The cartel authorities said no but Krauss Maffei nevertheless ended by being bought by a consortium in which MBB will have a major managerial role.

Blohm and Voss, West Germany's biggest producer of surface warships, is poised to buy a large part of the Howaldtswerke-Deutsche Werft (HDW) a major submarine builder.

Krupp MaK, chief angine supplier to the Leopard tank programmes, has said it is looking for an "industrial partnar," probably another supplier of heavy diesels and it is not unlikely that MTU'a diesel business will prove to be the right home.

Mr Woerner says he is not alarmed by this new concentration of prodnction. On the contrary, tha movement could actually increase competition because it strengthens some of tha weaker producers.

Dornier is a case in point. Before it was taken over by Daimler-Benz it was riddled with management inefficiencies, but under a powerful naw wing will probably prove a far more effective competitor for MBB.

There is also no doubt that the Government, for all its free market principles, would nat hesitate to protect its interests in a strong domestic arms industry. Krauss Maffei was bought after the British tank producer, Vickers, showed an interest in acquiring it. The German establishment, including the Defence Minister, moved heaven and earth to ensure that it stayed in German hands — tank technology being probably the pnly area in weapons manufacture where the Germans can claim to be a major world force.

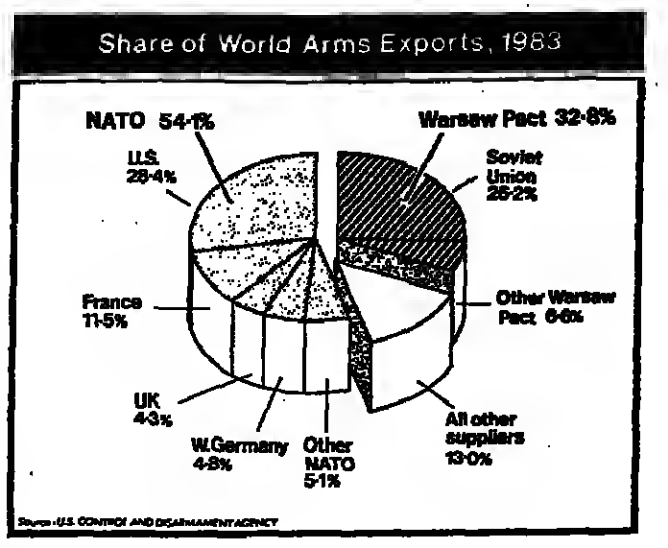
And provided the industry shouts loud enough, the Government listens. That happened earlier this year whan Bonn decided, after years of prevarication, to buy an American airborne identification system (IFF), instead nf a supposedly more sophisticated system developed by Siemens. By the time the uproar had died down, a compromisa quietly emerged under which the cheaper American system would be "modified" (although to what extent is difficult to say) with German companies winning some business.

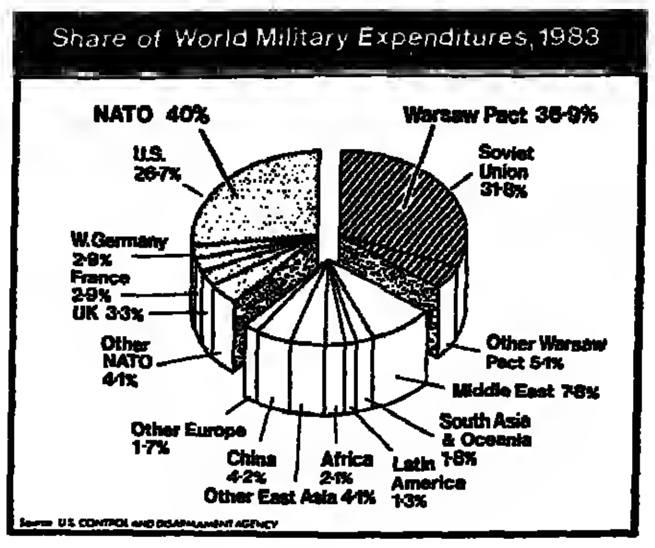
In one sense thongh, the arms industry in Germany has not yet even begun to fight. History has largely prevented West Germany from becoming a major arms exporter, leaving the country's manufacturers often with little more than vicarious profits when, for example, the British sell the Garman, British and Italian Tornado to Saudi Arabia. But the Government of Chancellor Helmut Kohl has set about easing export restrictions. What is missing is a breakthrough.

A provisional DM 7bn order from Saudi Arabia for a mnnitions plant, placed with German companies, could prove to be the key to manufacturers' exporting ambitions. Bonn, with an eye on the Israelis, has not said yes, officially, but it seems likely that it will, and that the contract will go ahead.

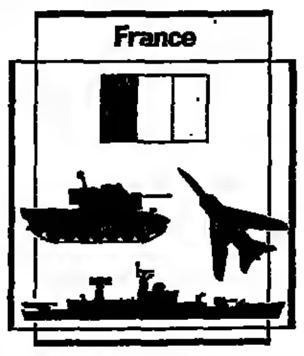
That one order woull dwarf the country's DM 2bn annual arms exports revenue outside Nato and could change the face of the industry. It is np to the politicians.

The Leopard II tank. Plans to replace it have been put aside because the high cost of improving on the present vehicle cannot be justified





Rising costs put on the squeeze



BY DAVID HOUSEGO

THE FRENCH armed forces are now beginning to feel the squeeze of rising defence costs and static budgetary allocations.

The 1986 armed forces budget, which was approved last month by the National Assembly, shows a modest increase in defence spending of 1.7 per cent in real terms with expenditure totalling FFr 158.2bn ($20bn) next year. But it comes after 3 years in which defence expenditure has declined at constant prices or only marginally grown, and in which the armed forces' share of tha National Budget is lower than it was in 1981. Defence spending accounts for about 3.8 per cent of GNP.

This squeeze on expenditure comes at a time when the armed forces have had to meet unexpected costs through their involvement in Chad and tha Lebanon. More important, it coincides with a growing call on resources to plng gaps where recent developments in military technology have shown up weaknesses in French defence systems.

Thus the government is expecting to invest more heavily in space technolngy as a result of US and Soviet advances in SDI. It is planning to spend more to strengthen the penetration capacity of French nuclear missiles. And it is under pressure to speed np the replacement programme of the army's long-range artillery.

The result of this has been that some ambitious programmes have already been scrapped. It is now virtually certain that Franca will abandon its project for a mobile strategic (SX) missile system even though it is recognised that the existing long-range nuclear missiles nn the plateau d'Albion are vulnerable to Russian attack.

The government has given np the idea of purchasing Boeing's AWACS early warning aircraft even though it is recognised that there is a large gap in France'a air cover in the South Eastern and Mediterranean area. There are also likely to be fewer Hades tactical nuclear missiles built and their delivery conld be postponed beyond the scheduled date of the early 1990s.

At the same time, deliveries of the Mirage 2000 to the Air Force have been slowed down and the Army is getting fewer new helicopters and tanks than it had expected. Inevitably, budgetary stringency has also cut into spending on fuel and ammunition with the result that exercises and training programmes have been cut.

The one area that has been exempt is expenditure on the nnciear deterrent. Thus the strategic submarine force which absorbed 22 per cent of planned equipment expenditure for the Navy in 1980 will absorb 34 per cent next year with the building of a seventh nuclear submarine.

Dissatisfaction with this situation among the armed forces has begun to spill out in public. Thus Gen Philippe Arnold commanding the first armoured divisinn, told jnurnalists last month that his budget for training and exercises had been cut by 17 per cent in 1984 and 8.5 per cent this year.

He complained that the French tank force was inadequate, saying that some of his tanks dated back to the 1960s and he would not receive the new AMX-30 B-2 for another two years. He was subsequently relieved nf his post.

This grumbling has not spread to the defence industries where exports help io make good the shortfall in purchasing by the armed forces. The turnover of tha French defence indnstries rose by 14 per cent last year to a record FFr 98.3bn. Of this, 43 per cent went to exports (also a record proportion) confirming France in her position as the world's third-largest arms exporter after the US and the Soviet Union.

Export orders gathered by the arms industry during the first six months of this year totalled only FFr 10.7bn or well down nn last year's level. But this performance picked np dramatically in the autumn with the sale of 24 Mirage F-1 fighters to Iraq—helping to carry the export orders total to FFr 21bn by mid-September.

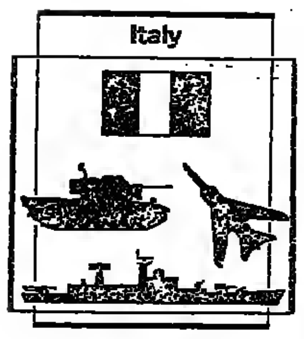
In the wake of this Thomson CSF, in collaboration with GTE of the US, won a $4.3bn order from the American armed forces for the French-designed RITA (Reseau integré de transmissions automatiques) battlefield communications system.

Of this, Thomson's share is about $1bn. The major disappointment to the French was the loss of the Saudi aircraft nrder to the Panavia consortium and the decision by France's European partnera to opt for a new European Fighter Aircraft in preference to tha Dassault - Breguet designed Rafale.

The French lobbying to get the Rafale adopted as the new European fighter aircraft is indicative of the close links between the government and the French defence industries. There is no system of competitive tendering in France such as Mr Michael Heseltine, the British Defence Minister, is trying to introduce in Britain. Equipment is conceived and designed in collaboration between the armed forces and equipment suppliers—but with a strong aye on export potential.

This tie-up has become even stronger since most of the defence industries including Dassault and Thomson were brought under state control in 1982.

Increasing need to sell arms to Nato countries



BY JAMES BUXTON

ITALY'S DEFENCE industry is reorganising itself. It needs to make a greater impact on the market provided by the Nato countries to offset the decline of its once-strong outlets in developing countries.

The country's defence industry has grown remarkably fast in the past 15 years. Though about half the size of its UK counterpart — it accounted for 5.6 per cent of Gross Domestic Product in 1982, against Britain's 11 per cent—it is a big exporter: about 70 per cent of its output was exported in 1982, against 42 per cent for the UK.

And over the 1978-82 period no less than 96 per cent of Italy's arms exports went to countries outside the OECD, compared with 83 per cent for Britain.

These statistics, based on a study by Prof Michele Nones of the Centre of Defence Studies at Genoa University, point up the basic difference between Italy and other big Nato countries: it has only a small defence budget, being one of the lowest spenders on defence as a proportion of GDP in Nato—and there is only a small domestic defence market: estimated at \$1.458bn in 1983, against the UK's \$6.53bn.

The industry comprises much of the country's aerospace manufacturing, a good part of its shipbuilding industry, some its vehicle manufacture and a big munitions and weapons sector. It employs about 80,000 people, and has found some important niches where it is a leader; in small ground attack aircraft (Aermacchi), fast, heavily-armed frigates (the Lupo and Maestrale, built by Cantieri Navali Riuniti) and electronic counter-measures (Elettronica).

However Italy's arms exports appear to have peaked. Having grown steadily from L2,100bn in 1980 to L4,400bn in 1983, they declined to L3,900bn last year, a drop in real terms of about 15 per cent. It had become clear two to three years ago that the falling spending power of Opec countries and the constraints imposed by the IMF on the economies of other developing countries meant a much less rosy future for the Italian defence industry.

Further, arms producers such as Italy which operate particularly in Third World markets face growing competition from rising producers such as Spain, Israel, Brazil, South Korea and South Africa, West Germany and Japan, more sophisticated producers, are in a position to challenge established manufacturers as they gradually lose their political shackles.

For Italy, there is no easy answer to these challenges, but the first step, which is widely recognised, is that the industry should be better co-ordinated, both at the level of government and of the companies themselves. Mr Giovanni Spadolini, the Minister of Defence, has made an important innovation by creating a committee that unites leaders of the defence industry, both public sector and private, with the Ministries responsible for both defence and for industry.

To co-ordinate the industry itself is more difficult than might appear to an outsider. The greater part of Italy's defence industry is controlled by IRI and EFIM, the state industrial holding companies. But that does not necessarily make for co-ordination, since the different defence companies under them represent the political interests of competing parties or factions.

The Agusta A129 Mongoose anti-tank helicopter (left) is at the centre of the company's concern about the future of Westland, the troubled UK manufacturer. Agusta has sold 60 A129s to the Italian Army and is to work on an improved version for the British Army, which would be developed and built jointly with Westland. The Italian maker is part of a three-company European consortium which may make a bid for a 30 per cent stake in Westland.

However in the past two years a fair degree of co-ordination has taken place. Oto Melara, part of Efim, has made an agreement with Fiat, the vast private sector group, to co-ordinate in building a new battle tank for the 1990s and a heavy eight-wheeled armoured car mounting a 105 mm gun. This means that the companies which between them are Italy's only makers of armoured vehicles are in effect united.

Italy's two main makers of missiles, Oto Melara and Selenia, the latter belonging to IRI-Stet, have formed a consortium which will co-operate in new projects in the field of missiles. Meanwhile, Elsag, part of IRI-Stet, is to work on sub-aqua systems with the Fiat subsidiary Gilardini Whitehead.

Agusta, Efim's aerospace company, which is best known for its helicopters, is leading a consortium of public and private sector companies to bid jointly for projects under the US Strategic Defence Initiative.

Concentration has also occurred within the private sector alone. Fiat is now the effective leader of the Italian munitions sector. In 1983 it took a controlling 25 per cent interest in Snia BPD, the country's biggest munitions company, and also bought Italy's two private sector makers of mines, Valsella and Misar.

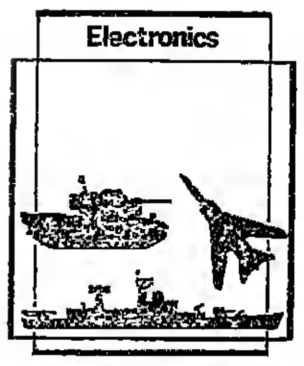
But there are important areas where rationalisation has not occurred: aerospace and aero-engines. Aeritalia, the airframe and aerospace offshoot of IRI-Finmeccanica, is a bitter rival of Agusta, which comes under Efim. Their interests overlap, if not clash, in subsidiary fields such as light attack aircraft.

But reorganisation cannot of itself bring in sales contracts. It will be interesting to see how two big collaboration ventures between Italian and other Nato companies fare. The first is the European Fighter Aircraft, where Italy is a partner with Britain, West Germany and Spain. The omens here are good, mainly because the core of the project is the Panavia consortium which functioned successfully to build the Tornado, thus giving Italy its first big boost as a Nato defence contractor.

The other collaboration is between Agusta and Westland of the UK in the field of helicopters. The two companies are working jointly on the EH 101, a large naval helicopter for both military and civil uses, which is designed to meet the needs of the Italian and British navies in the 1990s.

They are also working on feasibility studies for a new version of Agusta's A 129 Mongoose anti-tank helicopter, to meet the requirements of the British Army. The further development of the A 129 is very important to Agusta's future. But the serious financial problems of Westland have cast something of a cloud over the collaboration of the two tho collaboration of the two companies, though Britain insists that the future of Westland is not in doubt.

Major projects taking longer



BY JASON CRISP

DEFENCE and the electronics industry have always had a very close relationship, and if anything they are becoming more interdependent than ever.

Aircraft which can be flown only with the help of a computer, highly-sophisticated communications systems, detection and surveillance equipment all depend on the electronics industry and have an increasingly important role to play in the world's armed forces. Between 20 and 30 per cent of the electronics industry's output is estimated to go to defence.

The complexity of electronics and the associated software is bringing new headaches to the military as major projects take much longer and cost much more than even the most pessimistic prediction.

But as the worldwide slump continues for the electronics industry — from components to computers—the manufacturers look increasingly nervous about signs of government cutbacks in military spending. It is not surprising that so many companies have been keen to participate in the US Defence Department's \$26bn Strategic Defence Initiative or Europe's Eureka project.

One of the most important, and fiercely-fought contracts, for electronics equipment was to supply the US army with a battlefield communications system. Last month the Pentagon announced that Thomson-CSF of France together with its US partner GTE had won that contract worth \$4.3bn with the Rita system.

It was the largest US military contract ever placed with a foreign supplier. The decision was a double blow to Plessey of Britain which at one time had high hopes that its system, Ptarmigan, would win. Not only did Plessey — bidding with Rockwell of the US—not win but it was also seen to have made a much more expensive offering price of \$7.4bn.

The price differential was embarrassing to the British because the Prime Minister intervened earlier this year by writing to President Reagan to press Plessey's case. The decision inevitably will affect prospects for the two rival systems in other export markets.

It has also led to a Government investigation into the price of Ptarmigan as Plessey has substantial orders worth more than £700m to supply Ptarmigan to the British army —and there is considerable subcontract work in it for other UK defence electronics groups.

Plessey has argued with some success that the British army has not been overcharged for Ptarmigan. It has pointed out that the system accounted for less than 40 per cent of the cost of the bid, made jointly with the Collins division of Rockwell.

In addition, its second generation battlefield communications system has been sold to Australia, New Zealand and other countries. However, Racal has recently won a development order for a battlefield communications system from the Australian defence force expected to be worth £100m eventually.

Public rows over very expensive delays on torpedoes (which rely on highly sophisticated electronics work at a sufficiently early warning aircraft, have appalled Government Ministers and contributed towards the MoD's move to fixed-price contracts.

Nimrod is now at least five years behind schedule and GEC is still having great problems making the highly sophisticated electronics work at a sufficiently high performance. Nimrod will cost the British significantly more than if the RAF had bought the American AWACS as it originally wanted.

The problems of Nimrod illustrate both the difficulties of managing such highly complex projects and the problem of deciding whether to re-invent a product which already exists in a proven form. The RAF, which probably will have to wait until 1990 for a full squadron of Nimrods, can have little doubt that its first choice was the right one.

UK yards face a tougher future

BY ANDREW FISHER

THESE ARE exciting times for Britain's warship yards. But the *future will also* be tougher and more commercially demanding, as they cope with changes in their ownership and in the attitude of their main customer, the Ministry of Defence.

The return of the warship yards to the private sector is taking place as part of government policy to sell off assets at a profit.

Whila the merchant yards remain state-owned, and continue to lose money in the harsh world shipbuilding climate, the warship *building facilities* are being sold off to companies or their management and employees. *All* naval yards are keen to build up export business, though international competition is fierce.

One small yard and two large pnes have already been sold, the prices obtained surprising those who handled them. General Electric (GEC) paid £34m for Yarrow, the frigate builder on the Clyde, while a management team acquired Vosper Thornycroft in Southampton for about £18m, with institutional banking.

The small Brooke Marine yard in Lowestoft went for a much more modest £100,000 plus 1 per cent of the value of *certain future contracts it hor* to win. Handling the sales for the government and British *Shipbuilders, the state-owned* parent, has been Lazards, the UK merchant bank.

The surprise came from the fact that the pricea were so high. For under the closer ministerial scrutiny to which defence contracts are heing subjected—greater valne for money being the *aim—warship yards* will have it less easy in future.

Still to be sold are Vickers *Shipbuilding* and Engineering (VSEL), of which Cammell Laird is now a part, and Swan Hunter on the Tyne. It seems highly likely that a team of preaent and former executives will take Swan Hunter, which now concentrates on naval ships after withdrawing from the more fraught merchant sector.

The Vickers yard at Barrow-in-Furness, Cumbria, is by far the largest, building nuclear and conventional submarines as well as armaments. A price of about £70m has been mentioned within the industry.

Bnt much will depend on how

Devonport dockyard, where the Government hopes to save money on refits by bringing in private management. *Unions* strongly oppose this but the full privatisation of warship building yards has been going ahead with little controversy

the cost of a 230m covered submarine building facility is *treated. Able* to *handle several* submarines at once, it will be ready for the Trident nuclear *subarine programme. If* a future Labour government cancels Trident, equivalent non-nuclear work is *expected to be* provided.

A problem for the UK yards is that *naval orders* are not awarded by the Ministry of Defence in batches of several at a time that *would* provide their builders with an assured workload for a number of years. This would increase efficiency and lower costs to *the benefit of both sides.*

Budgetary constraints and bureaucratic caution ensure that *this does not happen in* Britain, though US yards are used to building a run of vessels *rather than* one at a time. So while the yards have been criticised, and often rightly so for *failing* to *match* the *productivity* standards of the merchant yards, their faults are not entirely of their *own making.*

At the start of this year, tha government handed out two long-awaited frigate orders worth £140m each. One of them was a clear lifeline to Cammell Laird on Merseyside, which had been suffering from industrial action, but whose remaining workforce had crossed picket lines to get to work.

Under the wing of Vickers, Cammell Laird now has a *future much more secure than* seemed possible a year ago. Like Scott Lithgow, sold by BS to Trafalgar House last year, Cammell Laird bad run into difficulties *in* the building of rigs for offshore drilling and exploration.

BS has now pulled out of that sector and Cammell Laird, with its modern facilities, is now firmly in the market for more frigate and non-nuclear submarine work. While Vickers is highly profitable, making a trading profit of nearly £18m in the 1984-85 financial year, Cammell Laird is still firmly in the red.

At Vosper Thornycroft, a possible £350m frigate order from Pakistan bas been under negotiation for some time. Tha deal would involve one ship heing built in Karachi and two in the UK. But Vosper is up against stiff West German competition.

It was disappointed not being *included in* the *frigate* orders that went to Swan Hunter and Cammell Laird. At present, it *is building mine-detecting* ships of glass-reinforced plastic for tbe Royal Navy and fast patrol craft for an unspecified foreign navy, as well as refitting frigates for Indonesia.

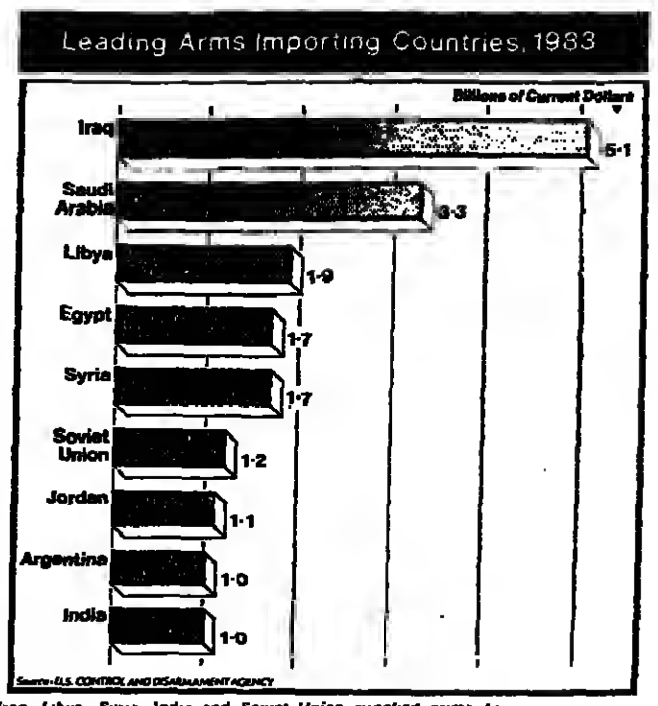
GEC's purchase of Yarrow was aimed at giving it a stronger foothold in a major part of its defence equipment business: the supply of electronics and electrical components for the control systems and *weapons of modern* warships. These account for about balf the cost of today's complex naval vessels.

To match the increasing complexity of warship design and construction, yards are investing heavily in computerised techniques. Vickers spent £6m on computers in 1984 and spending is continuing at this rate. Tha building of separate sec-

A highly-controversial aspect of the naval defence field is the *government's* intention to put the management of the naval dockyards into commercial hands. The dockyards at Rosyth in Scotland and Devonport, Plymouth, are basically the Navy's garages for complex refits and repairs.

Plenty of UK companies bave *shown an interest in the idea,* which would leave the assets in state hands. But implementing *the policy could be* an uphill task, as unions are adamantly opposed.

So *while the government's* target of privatising the warship yards by April 1986 looks like *being* achieved, that of privatising the dockyard management a year later may well not be.



Iraq, Libya, Syria, India and Soviet Union supplied primarily by Warsaw Pact countries.

Surplus capacity brings problems

THE ARMED FORCES of the world continue to demand more and hetter weapons at a time when developing countries are building up their *own* arms industries.

This is taking export markets away from the traditional arms-producing countries of East and West and adding to their problems of surplus orms production capacity. These problems have been emerging for some time as nuclear weapon purchasing programmes bite into tight defence budgets, in the US and in Europe.

Brazil and South Korea are two countries with emerging arms manufacturing industries, but several other countries also manufacture arms for their own use, including Israel, with an advanced capability in aircraft, missile and tank manufacture, and South Africa, which has had to develop its own capability in the face of an embargo on arms exports.

Many of these relatively recent arms producing countries have also found success with their *own* exports, taking further markets away from traditional US and European producers.

At the same time, the cost of conventional weapons *programmes has continued to* increase as technical advance has opened new solntions. *Examples* include *the growing* use of laser beams to guide unpowered bombs onto targets *and to align tank gun barrels,* and passive detection systems for missiles and guns.

In the US, the Army has recently taken delivery of another example of a new armament that takes advantage of developments in high technology to make the weapon more cost effective than traditional solutions. This is its 10,000th laser guided Copperhead artillery projectile. The Copperhead projectile is made by Martin Marietta of the US.

It is designed to be fired from an army gun in the direction of the target, probably a tank. Near the target, the Copperhead is guided down, to hit the target at its weakest and most vulnerable point, on the top.

The US Army is to buy more than 31,000 Copperhead projectiles from Martin Marietta by 1991.

In the US and Europe the problem of lost markets and the *rising cost of equipment is compounded* by much apparent duplication among manufacturers.

The Nato allies bave more manufacturing capacity for *main battle tanks* than *they* have orders to fill the production lines.

The US is making the Abrams main battle tank; the UK is making the Challenger main battle tank; *France is* making its own AMX tank and West Germany is making the Leopard 2 main battle tank.

Their existence, virtually alongside each other, illustrates how poorly the Nato allies have succeeded in drawing up agreed specifications for common main battle tank designs.

In the UK, the surplus capacity in the face of current market demand and the difficulty of companies to win orders, is particularly acute. There are two large companies in the UK with factories designed to produce main battle tanks, Vickers Defence Systems on Tyneside and the Royal Ordnance Factory at Leeds. There is debate about whether the UK can justify retaining two tank factories.

The position in the heavy armoured fighting vehicle industry in the UK is likely to become clearer as the day approaches, next June or July, when the state-owned Royal Ordnance Company is prepared for its flotation on the London Stock Exchange and its complete transformation into a fully

BY LYNTON McLAIN

commercial company away from its present sole shareholder, Mr Michael Heseltine, the Defence Secretary.

In West Germany, there are also two companies capable of making main battle tanks, in this case the Leopard series. Krauss-Maffei of Munich, the prime contractor for the Leopard 1 tank, is building the Leopard 2 for the Federal German Army. Krupp Mak of Kiel is also making the Leopard 2 for the Army.

The total order for 1,800 Leopard 2s for the German Army is expected to be completed next year.

The need to contain design, development and production costs in the military equipment industry has called for new design and procurement techniques, based on a so-called systems approach. The aim is also to keep procurement costs to the minimum consistent with meeting design and operational parameters.

The systems approach is illustrated by the £17m Anglo-German-Italian Tornado multi-role combat aircraft and its associated weapons programme. The Tornado is both a fighter and a bomber and the equipment that enables it to carry out these roles has been designed from the outset to operate not as an appendage to the aircraft, but as an integral part of the so-called "systems design"

Tornado operates with the *JP233 runway cratering bomb* as a ground attack aircraft and with the British Aerospace Skyflash air-to-air missile as a fighter. Both armaments were designed in parallel with the aircraft.

However, even this technology is being overtaken by technical developments and changes in the perceived threat and the effectiveness of the aircraft.

Europe near full commitment on £20bn fighter

Aerospace

BY MICHAEL DONNE

THE BIGGEST single future programme now dominating the UK aerospace industry's thinking is the plan for the four-nation development of a new tactical combat aircraft to replace ageing Jaguars, Phantoms, Lockheed F-104s, Buccaneers and F-16 fighters — currently used in a wide variety of roles in Western European air forces.

There are many other major military aircraft programmes under way in the UK. These include:

- Development and production of the advanced AV-8B Harrier II jump-jets for the RAF and the US Marine Corps, in conjunction with McDonnell Douglas of the US, involving 394 aircraft in all.
- The British Aerospace Hawk for the RAF and overseas air forces, and the US Navy under the VTX-TS programme, together with development of the Hawk Series 200 single-seat fighter venture by British Aerospace.
- Continued production of tha Tornado multi-role combat aircraft itself for the tri-national (UK, West Germany and Italy) Panavia combine and for export to Saudi Arabia and Oman.

All these military aircraft programmes are expensive, with Tornado so far the most expensive of all. But they are expected to be eclipsed by the new tactical fighter programme, called the EFA or European Fighter Aircraft.

The EFA, now moving through its Project Definition Phase, is expected to involve more aircraft in terms of nnmbers than even the Tornado (up to 1,000 aircraft against the Tornado's 809), and to be even more expensive, perhaps as much as £20bn including research, design, development, and production. It will be spread across the four nations currently involved and reach into the mid-to-late 1990s and probably even into the next century.

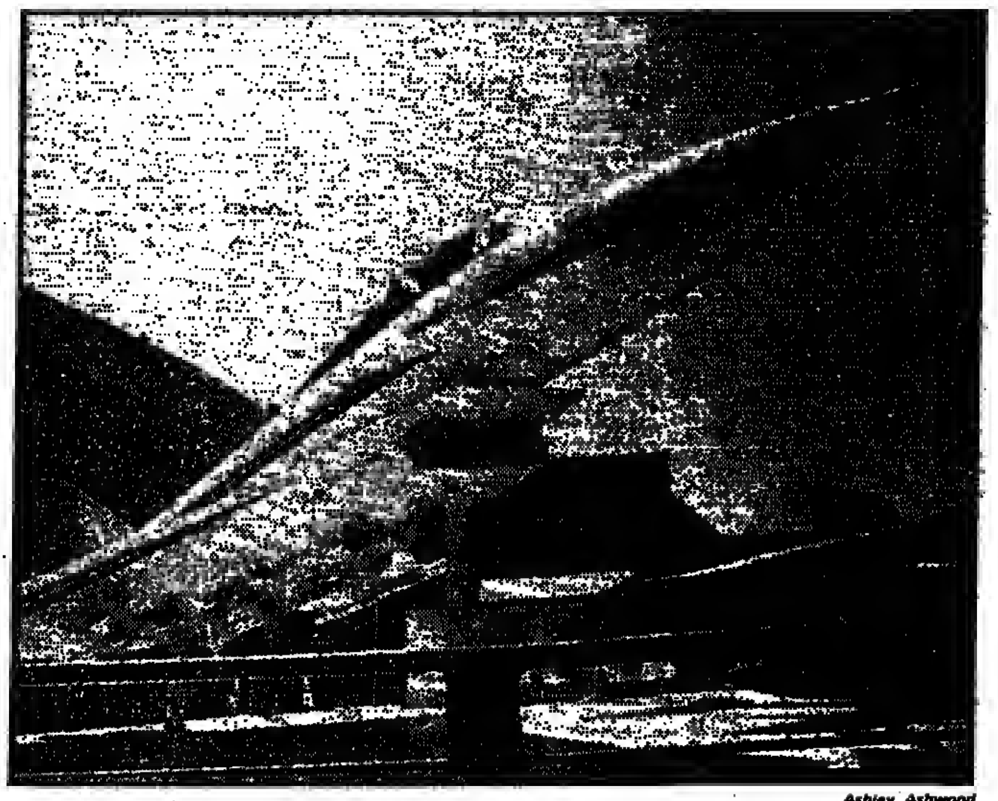
The EFA is designed to complement the Tornado in combat roles. Whereas the Tornado is a bigger, heavier aircraft with a substantial strategic role (reaching deep into enemy territory on bombing missions, and ranging far out over the North Atlantic for the maritime defence of NATO's Western seaboard and approaches), the EFA is essentially a smaller, lighter aircraft for ground attack and air superiority over the battlefield.

It is intendad to enter operational service by 1995, which means a start to full-scale production by 1991-92. This in turn means that it will have to begin its full development in the mid-summer of 1986, which means a full commitment by the four governments currently involved (tha UK, West Germany, Italy and Spain) by that time.

The French were originally intended to be partners in the venture, but dropped out earlier this autumn when it became clear at a meeting of National Armaments Directors in Turin that the French ideas of a new tactical fighter did not coincide with those of the other nations.

As a result, the EFA consortium finally was drawn up to involve Britain, Germany, Italy and Spain, with the French deciding to go alone with their their own venture, the Dassault-Breguet (Avion de Combat Experimental) now called the Rafale.

The French decision to go alone was due to the incompatibility of its ideas with those of the other nations—primarily because the French needed only a ground-attack aircraft, and not one that also incorporated air-superiority, a role that in the French Air Force is already performed by the Mirage 2000 and Mirage 4000.



Ashley Ashwood

Mockup of the EFA aircraft. The four goveroments involved will have to make a full commitment by summer next year if the fighter is to enter service by 1995

Subsequently, however, President Mitterrand of France has suggested that there might still be a French presence in the EFA, perhaps 5 to 10 per cent, and that in return the four EFA nations might have some financial stake in the Rafale venture. It seems that President Mitterrand foresees both ventures being developed side by side but with some exchange of technological information.

At present, there seems to be no suggestion of the French dropping the Rafale to rejoin the EFA, and there is certainly no intention of the four EFA nations re-opening the long debate and accepting the Rafale as the new tactical combat aircraft for Europe.

Certainly it is being made clear privately in the UK aerospace industry that the French intentions will have to be spelled out in detail, and that there can now be no question of the four EFA nations changing their basic aircraft formula to suit French requirements; the debate on EFA, which took so long to resolve, is not about to be reopened. The French, if they come in at all, coma in on the four EFA nations' terms.

For this reason, the four nations are now pushing ahead with the Project Definition of their own aeroplane, a process that is likely to last several months, up to the late spring or early summer of next year.

This involves determining the precise structure of the management organisations that will run the programme, on both the engine and airframe side; determining the precise parts of the aircraft that each national aerospace industry will undertake; and refining the current preliminary design (outlined in a European Air Staff Target, or EAST) into a firm requirement (a European Air Staff Requirement, or EASR).

This, in turn, will defina in detail the performance characteristics of the aeroplane — its size, weight, speed, range, rate-of-climb, design shape, weapons payload and other requirements. From this, the aerospace industries of the four EFA nations can determine precisely how to build the aircraft.

Fundamentally, the industrial work division (and cost sharing) is 33 per cent each for the UK and West Germany, 21 per cent for Italy and 13 per cent for Spain.

The four EFA governments are insisting that this distribution is retained through the entire ventore, across airframe, engine, avionics, equipment and weapons loads, although in the latter provision will be made for individual national "fits" of weapons to meet special requirements. The shares could be marginally adjusted to allow for new entrants if necessary—the Dutch and Belgians are understood to be interested, and even the French could now still get some share.

But tha primary manufacturers will be British Aerospace, Messerschmitt-Bolkow-Blohm, Aeritalia and Casa on the airframe, with Rolls-Royce, Motoren-und Turbinen-Union, Fiat Aviazione and Senner on the engine. How the avionics and equipment will be shared is more complex, in view of tha much greater number of companies involved in these fields in the four countries, each of which is anxious for some share of the EFA.

At present, what is clear is that the EFA is a so far politically committed programme. Full-scale development go-ahead is expected next mid-summer, with the target of production from 1991-92, and an in-service date of 1995.

Past experience has shown that in all such military programmes, there are many political and technical hazards to overcome, and the EFA is not likely to be spared such hiccups.

But, on present indications, the programme is firm and rolling ahead, and if the desires of the aerospace industries are fulfilled, it will be eventually the biggest single military aircraft venture on the European side of the Atlantic this century.

Rise in joint programmes

DEMAND FOR missiles and guided weapons continues to dominate much of the high technology development in the military manufacturing sector, with expenditure on missiles and associated systems estimated at $10bn a year for the rest of this decade.

The high cost of some individual programmes, and the indentification of a common foreseen demand among allies of the North Atlantic Treaty Organisation, has led to collaborativa programmes of unprecedented scale and complexity.

One of the largest recent examples is the programme to produce the multiple-launch rocket system with terminally-guided warheads (MLRS TGW) for Nato.

The cost of this programme is expected to run into billions of dollars if a decision is taken to move forward from the current development phase to put the system into mass production in the late 1980s.

The MLRS TGW programme is the result of a collaborative agreement between the US, UK, France and West Germany to develop a salvo-launched ground-to-ground rocket system. The rockets are to be capabla of dispensing an undisclosed quantity of warheads that towards the end of their trajectories can seek and destroy individual tank targets.

The $90m contract from the US Army Missile Command for the co-operative development of the MLRS TGW was awarded to the MDTT Joint Venture, comprising Martin Marietta of the US, Thomson Brandt Armaments of France, Thorn EMI Electronics of the UK and Diehl of West Germany.

Tha contract includes options for a second and third phase of development which would bring the total contract value to the equivalent of approximately $550m.

The special terminally-guided warhead to be developed for the multiple-launch rocket system is designed "to help to counter the Warsaw Pact's growing numerical superiority in armoured vehicles by permitting attacks in the enemy's second-echelon divisions and beyond before they can be committed to the central battle," according to the US Pentagon.

The Pentagon says that since 1977, the increase in the number of Warsaw Pact armoured vehicles has continued to outstrip Nato's capability to defeat them with direct fire weapons. The rocket system with its guided warheads will go some way towards replacing heavy guns with Nato armies and MLRS has become the centrepiece of Mr Caspar Weinberger, the US Secretary of Defence's "emerging technology" (ET) initiative.

The first version of the multiple-launch rocket system, made in the US with LTV Aerospace Division as the prime contractor, and known simply as MLRS, is already in service with the US Army.

A second version, known as MLRS-II, is being developed in the US and in West Germany, where the German Army is considering the weapon for use as a salvo-launched rocket attack system with scatterable anti-tank mines delivered at the end of its trajectory.

Mr Norman Lamont, the UK Minister of State for Defence,

Missiles

BY LYNTON McLAIN

told MPs in the Commons in October, that the Government "expects the inter-governmental memorandum of understanding for European production of MLRS phase I will be signed in November."

Another large contract currently the subject of intense lobbying in the US is for the replacement of the cancelled Ford "Sergeant York" divisional air defence gun. At least 11 alternative gun or missile systems are thought to be candidates for this contract, which could run to a total of billions of dollars in value.

Tha US Defence Secretary told the US Army that it had to put together its requirements for the proposed low-altitode air defence system to replace the abandoned Sergeant York gun by the end of last month (November). The radar guided gun was cancelled in August after $1.8bn had been spent over several years to try to perfect the system.

The 11 or so systems likely to contend for tha order are expected to be whittled down to three systems for the US Army to evaluate. The requirement is for a system, either gun or missile-based, to shoot down extremely low flying helicopters at about 6 km to 7 km range.

British Aerospace has joined Norden, a subsidiary of United Technologies of the US, to promote the BAe Tracked Rapier ground-to-air guided missile system in the US to win the contract.

The total contract for this low level air defence system for the battlefield could be worth up to £2bn and up to 300 Tracked Rapier systems could be involved.

The BAe Rapier system is in competition with the Franco-German Roland III anti-aircraft missile system and the Swiss ADATS missile. Boeing is bidding for the contract with its Avenger multi-purpose wheeled missile carrier, operating eight Stinger missiles.

Bofors of Sweden is offering a combined tracked launcher for the RBS 70 laser beam-riding missiles and a radar-guided gun.

General Dynamics is also understood to be considering offering a combined gun and missile system. This would be based on the Vulcan Gatling-type gun and the Stinger missile.

In the air-to-air missile sector, British Aerospace has started negotiations with Sweden on the possibility of co-operation on the development of a naw air-to-air missile, the Sky Flash 90.

The company has launched Sky Flash 90 to meet the needs of export markets that do not want to buy the proposed AMRAAM advanced medium range air-to-air missile. Amraam is under development by Hughes Aircraft of the US with possible production in the UK and West Germany.

BAe, Marconi Defence Systems and the West German Messerschmit Bolkow Blohm and AEG-Telefunken companies have concluded that production of the Amraam would be feasible in Europe, but no final decisions have been made.

Other international collaborative projects currently underway include the advanced short-range air-to-air missile, the AIM-132 Asraam. This missile is being developed by British Aerospace and Bodenseewerk Geraetetechnik of West Germany. This collaboration involves the two European countries developing Asraam, while the US develops the advanced medium-range air-to-air missile, Amraam.

INTERNATIONAL APPOINTMENTS

Schaeffler quits Airbus for Dornier

BY RUPERT CORNWELL IN BONN

THE FUTURE management structure of Airbus Industrie, the European airliner consortium, is in the balance after the premature return of Mr Johann Schaeffler, its vice president, to West Germany to becoma the new chief executiva of Dornier, the country's second largest aerospace company.

Mr Schaeffler's appointment, to take effect from next February 1, was confirmed lata last week by the supervisory board of Daimler-Benz, tha West German car manufacturer, which holds a controlling 65.5 per cent stake in Dornier.

The move means that Mr Schaeffler, who previously was a senior executive at Messerschmidt-Bölkow-Blohm (MBB), the West German partner in Airbus, will have spent only 11 months in Toulouse with Airbus. His arrival there in March 1985 was seen as a landmark which signified a major reduction in what hitherto had been overwhelming French domination of the management of the four-nation venture.

It is now likely that all four participating countries—France, Britain, West Germany and Spain—will be fielding candidates for the job, ranking second only to Mr Jean Pierson, the Airbus chairman, when a choice is made early in the New Year.

When Mr Schaeffler, widely considered to be the most forceful figure in the West German aerospace industry, chose to go to Dornier is not fully clear. Some sources, believe that family considerations were the key factor in his decision.

At Dornier he will be replacing Mr Manfred Fischer, a former chief executive of the Bertelsmann publishing concern. Mr Fischer went to Dornier in September 1984, but thereafter was caught up in the fierce feud within the owning family for control of Dornier, which boasts annual sales of DM 1.5bn ($600m).

At one point he was ousted, only to be reinstated by a court verdict shortly before Daimler-Benz took over. The new owners of Dornier are known to have been unhappy at Mr Fischer's lack of experience in the aerospace sector, and pressed — ultimately successfully—to secure the services of Mr Schaeffler.

Renault strengthens its grip over AMC

BY TERRY DODSWORTH IN NEW YORK

RENAULT, the nationalised French motor group, is reshuffling the top management at American Motors (AMC), its US affiliate, in a move which formally strengthens the parent company's grip over the running of the company.

The reorganisation, which had been expected for some time, brings in Mr Pierre Semerena, an executive vice president at Renault in France, as chairman of AMC. He replaces Mr Paul Tippett, an American who had been chairman since 1982, but who stepped down from active executive involvement in the company earlier this year.

Mr Semerena, 58, has had previous experience at American Motors as a member of its board of directors from 1980 to 1982, when he was working in Renault's international division and as vice president for planning and control at the French group's automobile operations. He resigned the directorship at AMC when he became chief executive of Renault Vehicles Industriels, the group's truck subsidiary.

Mr Jose Dedeurwaerder, 52, who was given effective control of the group about a year ago when he became chief executive as well as president, takes on the additional title of chairman of the executive committee. Although it had been suggested that Mr Dedeurwaerder might return to France for a senior posting, his new appointment seems to suggest that he will remain responsible for strategic issues at AMC, which he recently said he did not want to leave.

Mr Joseph Cappy, an American who joined AMC from Ford, becomes chief operating officer with responsibility for day-to-day manufacturing. Aged 51, he is currently executive vice president of the group.

The reorganisation at AMC, in which Renault has a 46 per cent holding, comes at a time of considerable uncertainty over its future in the US, where it lost $119m in the first nine months of this year.

The company has been exposed to fierce competition in its market for its compact Alliance car, sales of which have slumped badly, and is looking to expand its product line. But it is not clear where AMC will build a replacement model, and Mr Dedeurwaerder has indicated that he is trying to attract some state assistance in Wisconsin, where AMC is based, as a condition for further investment in the facilities.

UK APPOINTMENTS

Changes at Albright and Wilson

ALBRIGHT & WILSON has appointed Mr W. D. Adair to the main board as development director from January 1. He is managing director of A & W's phosphates division. Mr G. I. Black has been appointed managing director, phosphates division from January 1. He is commercial director of the division. Mr W. M. Winstanley, division sales director, will become commercial director and deputy managing director of the division. Mr G. Frank, development director, will succeed Mr Winstanley as sales director. Mr P. H. Hoxley will succeed Mr Frank as development director. He is currently commercial manager of A & W (Australia).

*

BRITISH ALCAN SHEET has appointed a senior manager to spearhead a campaign to recycle aluminium from used drink cans. Mr Derek Hayter has been appointed UK recycling and can promotion manager. He will act on behalf of the major European suppliers of aluminium canstock to encourage can recycling schemes and the redevelopment of the market for aluminium cans. In the UK, over half of all drink cans are now in aluminium.

*

Mr Roger Eckersley has been appointed a director of CRAWLEY WARREN AND CO, Lloyd's brokers, and also joint managing director of Crawley Warren Group's accident and health division.

*

Mr Iain Hardcastle has been appointed managing director of LIVERPOOL & LONDON P & I MANAGEMENT; for an initial period he will work jointly with Mr David Gregson. Mr Hardcastle was previously managing director of a managing agency at Lloyd's, and underwriter of aviation and non-marine syndicates. Mr David Taylor, who is a partner in Hill Dickinson & Co, London, has retired from the board of Liverpool & London.

*

Mr E. Butler, investment manager and a director, has been appointed deputy general manager of WESLEYAN & GENERAL ASSURANCE SOCIETY.

*

VALIN POLLEN has appointed Mr Andrew Porter and Mr David Roberts to the board from January 1. Mr Porter joined Valin Pollen in early 1984 from a public relations background and was made an associate director in January 1985. Mr Roberts, previously a board director at LansdownEuro, joined Valin Pollen earlier this year as an account group head.

*

Mr Brian Nicholson has joined the board of CCA GALLERIES. He is chairman of Marlar International, a director of News UK, a member of the board of Lloyds of London Press, and a director of the London Broadcasting Company.

*

Mr David C. Blundell has been appointed managing director of SOGEMIN (HOLDINGS) and chairman of its subsidiary companies. This follows the retirement of Mr Frank Gregory, who will remain on the boards as a non-executive director. Mr Patrick Fearon has been appointed to the board. Sogemin (Holdings) is a subsidiary of Societé Générale des Minerais, Belgium.

*

Mr Christopher Keen has been appointed general manager of THE UNITED BANK OF KUWAIT from March 31. He is at present deputy general manager. He succeeds Mr David West, who has been appointed adviser to the chairman.

FINANCIAL DIARY FOR THE WEEK

The following is a record of the principal business and financial engagements during the week. The board meetings are mainly for the purpose of considering dividends and official indications are not always available whether dividends concerned are interims or finals. The sub-divisions shown below are based mainly on last year's timetable.

TODAY

COMPANY MEETINGS—
Dunton Group, 130 High Street, Chesham, Bucks, 10.30
Keystone Inv, 33 King William Street, EC, 2.30
London and Strathclyde Tst, 2 St Mary Axe, EC, 2.30
Lucas Inds, Birmingham Metropole Hotel, National Exhibition Centre, Birmingham, 12.00
UDO Hldgs, Great Eastern Hotel, Liverpool Street, EC, 11.00

BOARD MEETINGS—
Finals:
Carlton Communications
Craton Lodge and Knight
Lee (Arthur)
Midsummer Inns
Nash Inds
United Scientific
Interims:
Belhaven Brewery
Brown and Tawse
Cook (William) (Sheffield)
Halma
Parkfield
Siebe
Thermal Scientific
Tops Estates

DIVIDEND & INTEREST PAYMENTS—
Berry Trust 1.05p
British Dredging 1p
Chesebrough-Pond's 50 cts
Dura Mill 4p
FPL 49cts
Ford Motor Bdr 3.5 cts
GBC Capital 1.5 cts
General Motors Bdrs 6.25 cts
Glieves 1p
Henderson 2.5p
Honeywell 50 cts
Hutton (E. F.) 22 cts
Investors Cap Tst 5¼pcPf 1.8375p
Keystone Inv 6p
King and Shaxson 2.5p
Korea Exchange Bk Fltg Rate Notes 1995 (Br $5,000 and £50,000) £148.03
Land Securities 2.9p
Owen Owen 10p
PSM Intl 2.2p
Petaling Tin Berhad 60 cts
Pochin's 2.8p
Prestwich 0.7p
St John D'el Rey Mining 65 cts
Smart (J.) 3.15p
Telemetrix 1.15p
Texas Eastern Fin 15¼pc Notes 1984 7.9375pc
United Ceramic 1p
Viking Resources 0.55p
Whitworth Electric 1.509375p

TOMORROW

COMPANY MEETINGS—
Barbican Hldgs, Connaught Rooms, 61-65 Great Queen Street, WC, 12.00
CPU Computers, Mayford Manor Hotel, Guildford Road, Mayford, Surrey, 10.00
Japan Asset Trust, 1 Charlotte Square, Edinburgh, 12.30
New Court Trust, New Court, St Swithin's Lane, EC, 2.45
Northern American Tst, Beldine House, West Ferry, Dundee, 10.00
Scottish National Trust, 181-195 West George Street, Glasgow, 12.00
Simpson (S.), 34 Jermyn Street, SW, 12.00
Smiths Inds, 765 Finchley Road, NW, 12.00

BOARD MEETINGS—
Finals:
Cifer
Micro Scope
United Leasing
Watson & Philip
Interims:
British Benzol Carbonising
British Steam Specialities
Danae Inv Tst
Flogas
GT Asia (Sterling) Fund
Hampton Gold Mining Areas
Hycu
Rothschild (J.)
Tinsley (Eliza)
Triplex

DIVIDEND & INTEREST PAYMENTS—
Allied Irish Bks 4.5p
Apricot Computers 0.35p
BBL Intl $211.28
Chamberlain and Hill 1.4p
EAB Fin Fltg Rate Notes 1995 $209.69
Limited Inc 4 cts
Malaysia Min Corp Berhad 0.25935p
North Sea Assets 0.8p
Panama (Rep of) Fltg Rate Notes 1992 $460.68
SCUSA 0.85 cts
Senior Engineering 9½pcLn 1994-99 4.6875pc
Yorav Inds 3 Yen
United Mizrahi Int Inc Fltg Rate Notes 1987 $422.55

WEDNESDAY DECEMBER 18

COMPANY MEETINGS—
Cramphorn, Caton Mill, Chelmsford, 12.00
Drayton Cons Tst, 11 Devonshire Square, 10.00
Hepworth (J.) Claridge's, Brook Street, W, 12.30
Low (Wm), Baird Avenue, Dryburgh Industrial Estate, Dundee, 12.00
Majedie Inv, Plantation House, Mincing Lane, EC, 12.15
Scottish Cities Inv Tst, The Great Eastern Hotel, Liverpool Street, EC, 12.00
Town Centre Securities, The Merrion Centre, Leeds, 12.00

BOARD MEETINGS—
Finals:
Archimedes Inv Tst
Bootham Engineers
Conrad
North British Steel
Western Selection
Interims:
Hood Robinson
Jacksons Bourne End
NESCO Inv
Wight Collins Rutherford Scott

DIVIDEND & INTEREST PAYMENTS—
Cramphorn 3.5p
Credit National Fltg Rate Notes 1985 £145.60
Flight Refuelling 1.35p
Glywed Intl 3.75p
Industrial Credit Inv Corp of India Fltg Rate Notes 1991 $209.80
Local Authority 10¼pcBds £5.1967
London County, Midland Tst 6½pcDb 1981-86 3.25pc
Marine Midland Bks Fltg Rate Sub Notes 2009 $214.86
New Australia Inv Tst 1.8p
Riverview Rubber Ests Berhad 10 sen
Scanro 1.5p
Scottish Cities Inc Tst 17p, A non-vtg 17p
Scottish National Trst 3.35p, 6pcPf 2.1p
Standard Chartered Und Prim Cap Fltg Rate Notes £746.47
Taiwan Power Fltg Rate Notes 1992 $419.38

THURSDAY DECEMBER 19

COMPANY MEETINGS—
British Empire Securities and General, Butchers Hall, 87 Bartholomew Close, EC, 10.30
Castle (GB), The North Euston Hotel, The Esplanade, Fleetwood, 11.00
GR Hldgs, The Chartered Accountants Hall, Moorgate Place, EC, 12.00
LWT (Hldgs), The South Bank TV Centre, Kent House, Upper Ground, SE, 3.00
Peters Stores, The Holiday Inn, Great North Road, Seaton Burn, Newcastle upon Tyne, 12.00
Yarrow, Charing Cross Tower, Glasgow, 3.00

BOARD MEETINGS—
Finals:
Aspinall
Bankers Inv Tst
Chemring
Grand Metropolitan
Hawtin
M & G Group
Wheway
Widney
Interims:
Ratners
Electric & General Inv
Equity & Law Life Assurance Society
Gibbon Lyons
London Merchant Securities
Marston Thompson & Evershed
Phoenix Timber
Wellman

DIVIDEND & INTEREST PAYMENTS—
Bank fur Arbeit und Wirtschaft Sub Fltg Rate Notes 1989 $406.67
Bowthorpe 2.33p
Canadian Overs Pack Ind 32 cts
Citicorp O'seas Fin Corp Fltg Rate Sub Cap Notes $211.7
Comprehensive Fin Serv 0.7p
Ellis and Goldstein 0.85p
English and Intl Tst 1p
Halliburton 45 cts
Marine Midland Bank Fltg Rate Sub Cap Notes 1996 $213.28
Midland Bank Fltg Rate Prim Cap Notes $415.02
NBK Fin (Cayman) Fltg Rte Notes 1587 $265.44
New Court Tst 10.125p
Prince of Wales Hotels 0.5p
UDO 2.5p
Unilever Sub-Shs Fl 4.86
Unied Mizrahi Int Inv Fltg Rate Notes 1988 $413.02

FRIDAY DECEMBER 20

COMPANY MEETINGS—
Barton Transport, The Novotel, Bostock Lane, Long Eaton, Nottingham, 11.00
Clyde Blowers, Livingstone Street, Clydebank, 11.00
Fundinvest, 11 Devonshire Square, EC, 12.00
Lowland Inc Tst, 26 Finsbury Square, EC, 2.30
Prestwick Hldgs, The Stakis Station Hotel, Ayr, 11.30

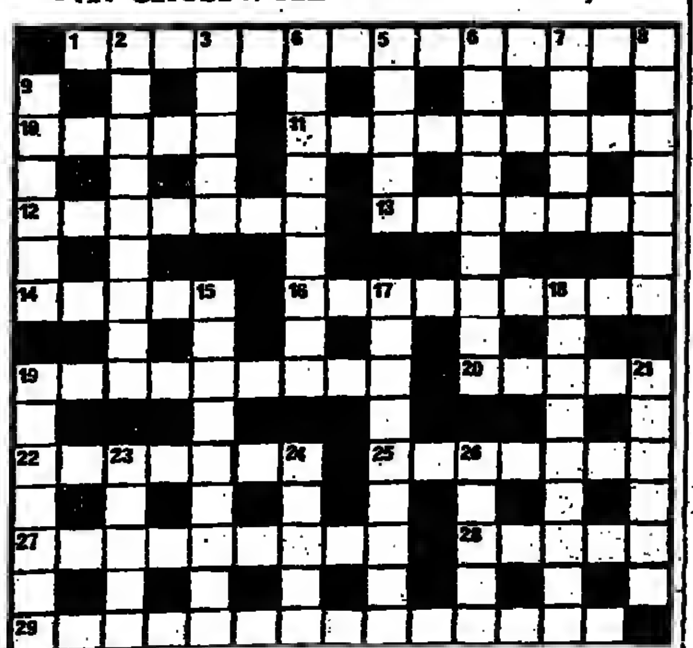
BOARD MEETINGS—
Finals:
Baynes (Charles)
Kelsey Inds
Williams (John) of Cardiff
Interims:
Berisfords
Forminster
Rotaprint
TR Trustees Corp
Zygal Dynamics

DIVIDEND & INTEREST PAYMENTS—
Acsis Jewellery 0.001p
Alva Inv Tst 1.3p
Banca Serfin Sub Fltg Rate Notes 1985-89 $325.33
Bank of Montreal Fltg Rate Debs Series 5 1990 $40.35
British-Borneo Petrol Syndicate 6p
Dataserv 0.0 cts
Drayton Cons Tst 7.5p
Essex Water 4pcDb 2pc, 5pcDb 2.5pc, 3½pcDb 1.75pc, 7pc 1986-88 3.5pc, 5pc 1986-91 2.5pc, 7pc 1987-80 3.5pc, 8pc 1991-93 4pc, 10½pc 1994-96 5.25pc, 7¾pc 1991-93 3.875pc, 10pc 1992-94 5pc
Feb Intl 0.89p, A non-vtg 0.89p
Great Universal Stores 11.75p, A Non-vtg 11.75
Gresham House 1.4p
Hanover Invsts 1.1p
InterNorth 62 cts
Investment Co 0.4375p
Japan Asset Tst 0.05p
Jersey General Invst Tst 5.75p
Loraine Gold Mines 18.798125p
MandG American Recovery 2.40
Northern Securities Tst 0.7p
Pfizer Inc 37 cts
Thorpac 1p

SATURDAY DECEMBER 21
Lone Star Inds 47.5 cts
Regentcrest 1.5p
Spain (Kingdom of) 12pcLn 1984 6pc

SUNDAY DECEMBER 22
British Printing, Com 6.5pcPf 3.25p, 7.5pcPf 3.75p, 7.75pcPf 3.875p

F.T. CROSSWORD PUZZLE No. 5,900



ACROSS

1 Book popular music for the season (9, 5)
10 Took it easy (I had been in front) (5)
11 It contains dry material that could be set alight (9)
12 Children's delight—excited for it? Ay! (3, 4)
13 Referring to warning or temptress? (7)
14 Tours abroad move with energy (5)
16 A match by men losing heart concerning king (9)
19 I pass exceptionally round here for sort of "take-away" (9)
20 Drops down round the East—they came from there! (5)
22 A particular regard (7)
25 Dish—sort to put out round one (7)
27 I'm in "Peter"—to me, a seasonal show (9)
28 Relating to bone, part of tail, I accept (5)
29 When king was observer after fall (5, 2, 7)

DOWN

2 Source of decoration to be handled with care (9)
3 Rain-god is out (no go) (5)
4 Breaking sail after disturbing trout provides lessons (9)
5 Saint connected with 1 about 29 (5)
6 You won't be this with 19 down 21! (9)
7 The flier could be a bit of a card (5)
8 Surprisingly, I excel on missing English dictionary (7)
9 Present season? (6)
15 Paraded and dismissed (6, 3)
17 Sailor—sort mainly inclined to receive soaking (9)
18 When 23 appears on the 24th? (9)
19 and 21 A drapple? (1, 4, 2, 6)
23 He's seen in pleasant attitude (in 12?) (5)
24 One who swipes (5)
26 Container holds last bit of plutonium as spare (5)

The solution to last Saturday's prize puzzle will be published with names of winners next Saturday.

FT UNIT TRUST INFORMATION SERVICE

AUTHORISED UNIT TRUSTS

[illegible]

CONTINUED OVERLEAF

AUTHORISED UNIT TRUSTS & INSURANCES

Oppenheimer Fund Mngt Ltd
66 Cannon St, London EC4N 6AE Dlg. 01-236 3885

International Growth	104.4	111.2	+1.1	1.30
Income & Growth	95.3	40.3		7.0
Special Situations	56.9	60.4	−0.2	1.20
American Growth	26.3	38.1	+0.2	1.90
Japan Growth	35.9	38.2	−0.1	—
European Growth	45.6	40.9	+0.9	2.50
UK Growth	43.6	46.6	−0.3	14
Pacific Growth	32.8	35.1	−0.6	2.0
High Income	29.5	31.6	−0.2	7.6
Practical Income Units	43.8	46.6	..	2.70
Practical Accum. Units	78.7	83.8	....	2.70

Pearl Trust Managers Ltd (a)(g)
252 High Holborn, WC1V 1EB 01-405 8441

Pearl Growth Fd.	69.2	77.4	+0.1	2.90
Accum Units	102.3	108.8	+0.2	2.90
Pearl Inc.	94.6	100.6	+0.1	4.91
Pearl Unit Tst.	100.4	106.8	+0.1	3.86
(Accum. Units)	171.9	182.9	+0.1	3.86
Pearl Intl Equity	97.3	103.5	+0.5	1.93
(Accum Units)	97.3	103.5	−0.5	1.93

Perpetual Unit Trust Mngmt. (a)
48 Hart Street, Henley on Thames 0491 576868

International Growth	209.9	225.3	+0.1	1.44
Income	150.0	160.6	−0.4	5.35
Worldwide Recovery	117.9	126.6	−0.3	2.13
American Growth	60.1	64.5	−0.1	1.08
Intl. Emerging Cos.	62.7	67.3	+0.1	0.74
Far East Growth Fd.	53.6	57.5	−0.2	1.14

Prolific Unit Trusts
222 Bishopsgate, London EC2 01-247 7544/7

Prolific American Inc.	49.4	52.6	..	5.04
Prolific Far East	112.1	120.5	−1.0	0.27
Prolific Extra Inc	65.4	69.4	−0.2	5.95
Prolific Convert & Gil	82.3	87.3	−0.3	1.22
Prolific High Inc	139.8	148.2	+0.3	5.09
Prolific Intl	88.5	95.5	..	1.60
Prolific N. Amer.	117.5	126.3	−0.2	2.06
Prolific Spec. Sits	153.0	162.3		1.41

Sun Life Trust Mngmt. Ltd
107 Cheapside, London EC2V 6DU 01-606 6010

American Growth Acc.	24.4	26.0	+0.1	1.9
American Income Acc.	24.7	26.3	−0.1	4.8
American Income Inc.	24.7	26.3	+0.1	4.8
European Growth Acc.	35.8	38.1	+0.3	2.3
Far East Growth Acc.	27.4	29.2	−0.3	0.9
Int. Growth Acc.	26.5	28.2	+0.1	0.9
Japan Growth Acc.	33.0	35.0	+0.2	0.3
UK Growth Acc.	29.8	30.8	+0.1	2.4
UK Income Acc.	26.3	28.0		4.5
UK Income Inc.	26.3	28.0	–	4.5

Swiss Life Pen. Tst. Man. Co Ltd (a)(c)
99-101 London Rd, Sevenoaks 0732 450161

Equity Dist.*	232.1	245.8	..	3.90
Equity Acc.*	279.5	295.7		3.90
Fixed Int. Dist.†	116.0	120.2	...	11.25
Fixed Int. Acc.†	170.2	176.3		11.25

*Prices on Dec 11. Next dealing Jan 8
†Prices on Dec 4. Next dealing Jan 2

TSB Unit Trusts (b) (c) (y)
PO Box 3, Keens House, Andover, Hants SP10 1PG
0264 62188 Dealings to 0264 63432-3

TSB American	98.7	[illegible]	+0.1	1.24
Do. Accum.	102.7	[illegible]	+0.1	1.24
TSB Extra Income	88.6	[illegible]	+0.1	6.08
Do. Accum.	101.9	[illegible]	+0.1	6.08
TSB General	133.8	[illegible]	..	3.10
Do. Accum.	215.3	[illegible]	.....	3.10
TSB Gilt & Fxd Int	46.9	[illegible]	+0.1	9.10
Do. Accum.	58.8	[illegible]	+0.1	9.10
TSB Income	170.5	[illegible]	+0.1	4.89
Do. Accum.	268.6	[illegible]	+0.1	4.89
TSB Pacific	111.2	[illegible]	−0.4	0.59
Do. Accum.	114.0	[illegible]	−0.4	0.59
TSB International	247.2	[illegible]	+0.3	1.88
Do. Accum.	303.4	[illegible]	+0.4	1.88
TSB Natural Resources	41.0	[illegible]	....	2.26
Do. Accum.	41.9	[illegible]	–	2.26

INSURANCES

هكذا من الأصل

INSURANCE, OVERSEAS & MONEY FUNDS

Scottish Life Investments
19 St Andrew Square, Edinburgh 031-225 2211

Property	106.8	112.9		—
UK Equity	139.2	146.6	-0.2	—
American	129.9	136.8	+0.9	—
Pacific	115.9	122.1	+0.1	—
European	152.7	160.9	+0.5	—
International	128.0	134.9	+0.4	—
Fixed Interest	105.7	111.4	+0.1	—
Index Linked	98.6	103.9	+0.1	—
Deposit	106.2	111.9		—
Managed	122.1	128.6	+0.3	—
Pens. Property	112.4	118.5	+0.1	—
Pens. UK Equity	148.4	156.3	-0.2	—
Pens. American	136.1	143.3	+1.0	—
Pens. Pacific	119.6	126.0	+0.1	—
Pens. European	163.8	172.5	+0.5	—
Pens. International	134.9	142.1	+0.4	—
Pens. Fixed Int.	111.3	111.3	+0.2	—
Pens. Index Linked	102.0	107.5	+0.1	—
Pens. Deposit	114.3	120.4	+0.1	—
Pens. Managed	120.2	136.1	+0.3	—

Scottish Mutual Assurance Society
109 St Vincent St, Glasgow 041-248 6321

Flex End Nov 13	660.2	680.6		—
Pen Mngd Sept 30	421.1	434.1		—

Scottish Mutual Investments
109 St Vincent St, Glasgow 041-248 6321

Safety Fund	105.1	108.6	+0.2	—
Growth Fund	101.F	107.1	+0.1	—
Opportunity Fund	104.3	104.6	-0.1	—
Cash Fund	98.6	103.8		—
European Fund	125.6	132.3	+0.5	—
Gilts & Fxd Int Fund	101.8	107.2		—
Index-Linked Fund	94.8	99.8	-0.1	—
International Fund	105.9	111.5	-0.2	—
North American Fund	94.0	99.0	-0.2	—
Pacific Fund	102.5	113.2	+0.3	—
Property Fund	98.6	103.8		—
UK Equity Fund	101.8	107.2	-0.2	—
UK Smaller Cos. Fund	105.4	111.9	+0.2	—

Sun Life Unit Assurance Ltd
St James Barton, Bristol BS99 7SL 0272 426911

Managed Acc.	342.8	360.9	-0.7	—
Property Acc.	204.7	215.5	+0.1	—
Equity Acc.	476.0	501.1	+0.2	—
Fixed Interest Acc.	190.6	200.7	+0.6	—
Index-Linked Acc.	105.9	111.5	-0.3	—
Cash Acc.	171.6	180.7		—
American Equity Acc.	116.0	185.3	-2.0	—
U.S. Bond Acc.	105.0	110.6	-0.4	—
Japan Acc.	134.0	141.1	+0.3	—
Pacific Acc.	105.2	110.8	-0.7	—
Far-Eastern Acc.	268.5	282.7	-2.3	—
International Acc.	255.1	268.6	-0.7	—
U S Dollar Acc.	96.5	101.6	-0.5	—
Yen Acc.	103.8	104.3		—
European Currency Acc.	101.3	106.7		—
Distribution	146.1	153.8		9.82

Sun Life Pensions Management Ltd
(Funds for individual pension contract)

Pens. Managed Acc.	345.6	363.8	-1.1	—
Pens. Property Acc.	166.7	175.5	+0.1	—
Pens. Equity Acc.	446.8	470.4		—
Pens. F. Interest Acc.	183.5	193.2	+0.8	—
Pens. Ind. Lnkd. Acc.	105.0	110.6	+0.1	—
Pens. Cash Acc.	178.5	187.9		—
Pens. Amer. Equity Acc.	145.2	152.9	-2.2	—
Pens. U.S. Bonds Acc.	119.2	125.5	-0.4	—
Pens. Japan Acc.	141.9	149.4	+1.3	—
Pens. Pacific Acc.	128.0	134.8	-1.0	—
Pens. Far Eastern Acc.	296.2	317.1	-F.8	—
Pens. Internat. Acc.	331.5	349.0	-2.3	—
Pens. U.S. Dollar Acc.	101.9	107.3	-0.4	—
Pens. Yen Acc.	111.1	117.0	-0.5	—
Pens. Euro Curr Acc.	103.8	109.3	-0.2	—

Swiss Life Pensions Ltd
99-101 London Rd, Sevenoaks 0732 450161

Equity	£195.28	201.31		—
Fixed Int.	£138.18	138.87		—
Index Linked	£109.15	109.69		—
Property	£156.95	161.80		—
Cash	£126.20	126.20		—

OFFSHORE AND OVERSEAS

World Fund S.A.
2 Boulevard Royal, Luxembourg

World Fund NAV	$14.03		+0.09	—

World Wide Growth Management®
10a, Boulevard Royal, Luxembourg

Worldwide Gth Fd.	$13.98			—

Inv. Adv.: M. & G. Inv. Mngt., Ltd., London.

Yamaichi Dynamic Mngt Co SA
10A Boulevard Royal, Luxembourg

Advanced Tech	$12.20			—
Dynamic Gwth Fd.	$11.11			—

Zero Bond Fund Limited
PO Box 208, St Peter Port, Guernsey 0481 26268

Zero Bond Fund	$10.29	10.89	

Money Market Trust Funds

	Gross	Net	Gr Equiv CAR	Int Cr

The Charities Deposit Fund
77 London Wall, London EC2N 1DB 01-588 1815

Deposit	11.10			3-Mth

The Money Market Trust
63 Qn Victoria St, EC4N 4ST 01-236 0952

Call Fnd	11.20	8.43	12.32	6mth
1-day Fnd	11.61	8.72	12.16	6mth

Oppenheimer Money Management Ltd
66 Cannon St, EC4N 6AE 01-236 1425

Call Fnd	10.90	8.22	11.99	6-Mth
7-day Fund	11.15	8.34	12.10	6-Mth
Dollar	6.75	—	—	6-Mth

Money Market Bank Accounts

	Gross	Net	Gr Equiv CAR	Int Cr

Adam & Co. plc
22 Charlotte Sq. Edinburgh, EH2 4DF 031-225 8484

Full Service Cur Acc.	11.00	8.00	11.78	Qtr

Aitken Hume
30 City Road, EC1Y 2AY 01-638 6070

Treasury Acc.	11.00	8.22	11.11	Qtr
Max. Int. Chq.	11.000	0.22	12.10	Mth

Allied Arab Bank Ltd
97-101 Cannon St, London, EC4N 5AD 01-283 9111

HiCBCA	11.50	8.60	12.78	mth

Bank of Scotland
38 Threadneedle St, EC2P 2EH. 01-628 8060

OPTIONS

3-month call rates

LONDON SHARE SERVICE

BRITISH FUNDS

"Shorts" (Lives up to Five Years)

Interest Due	Stock	Price £	Last xd	Yield Int.	Yield Red.
25 Aug 25 Feb	Exch. 11¼pc '86	[illegible]	19.7	11.76	11.65
11 Oct 11 Apr	Treas. 10pcCnv 1986	[illegible]	4.9	10.05	11.47
19 Nov 19 May	Treas 3pc 1986	[illegible]	14.10	3.09	10.11
19 Nov 19 May	Exch 10½pc 1986	[illegible]	14.10	10.55	11.60
12 Dec 12 Jun	Treas 12pc 1986	100¼	5.11	11.97	11.48
30 Jan 18 Jul	Treas 8¼pc 1984-86	[illegible]	[illegible]	8.62	11.34
29 Apr 29 Oct	Exch 14pc 1986	102	23.9	11.73	11.43
21 May 21 Nov	Exch. 2½pc 1986	95¼	15.10	2.63	8.02
22 Jul 22 Jan	Exch. 13¼pc 1987	101¾	17.6	11.04	11.53
10 Aug 10 Feb	Treas 10¼pcCv '07	[illegible]	4.7	10.39	11.95
24 Aug 24 Feb	Exch 2½pc 1987	93¼	18.7	2.68	8.66

Five to Fifteen Years

Over Fifteen Years

Undated

Index-Linked

INT. BANK AND O'SEAS GOVT STERLING ISSUES

CORPORATION LOANS

COMMONWEALTH & AFRICAN LOANS

LOANS

Building Societies

Public Board and Ind.

Financial

FOREIGN BONDS & RAILS

AMERICANS

AMERICANS—Cont.

CANADIANS

BANKS, HP & LEASING

BEERS, WINES & SPIRITS

BUILDING, TIMBER, ROADS

BUILDING, TIMBER, ROADS—Cont.

CHEMICALS, PLASTICS

DRAPERY AND STORES

DRAPERY & STORES—Cont.

ELECTRICALS

ENGINEERING

ENGINEERING—Continued

FOOD, GROCERIES, ETC

HOTELS AND CATERERS

HOTELS—Continued

INDUSTRIALS (Miscel.)

هكذا من الأصل

INDUSTRIALS—Continued

LEISURE—Continued

INSURANCES

LEISURE

MOTORS, AIRCRAFT TRADES

Motors and Cycles

Commercial Vehicles

Components

Garages and Distributors

NEWSPAPERS, PUBLISHERS

PAPER, PRINTING, ADVERTISING

PROPERTY

PROPERTY—Continued

SHIPPING

SHOES AND LEATHER

SOUTH AFRICANS

TEXTILES

TOBACCOS

TRUSTS, FINANCE, LAND

Investment Trusts

INVESTMENT TRUSTS—Cont.

Finance, Land, etc

FINANCE, LAND—Cont.

OIL AND GAS

OVERSEAS TRADERS

PLANTATIONS

Rubbers, Palm Oil

Teas

MINES

Central Rand

Eastern Rand

Far West Rand

MINES—Continued

O.F.S.

Diamond and Platinum

Central African

Finance

Australians

Tins

Miscellaneous

NOTES

Unless otherwise indicated, prices and net dividends are in pence and denominations are 25p. Estimated price/earnings ratios and covers are based on latest annual reports and accounts and, where possible, are updated on half-yearly figures. P/Es are calculated on "net" distribution basis, earnings per share being computed on profit after taxation and unrelieved ACT where applicable; bracketed figures indicate 10 per cent or more difference if calculated on "nil" distribution. Covers are based on "maximum" distribution; this compares gross dividend costs to profit after taxation, excluding exceptional profits/losses but including estimated extent of offsettable ACT. Yields are based on middle prices, are gross, adjusted to ACT of 30 per cent and allow for value of declared distribution and rights.

- ■ "Tap Stock".
- * Highs and Lows marked thus have been adjusted to allow for rights issues for cash.
- † Interim since increased or resumed.
- ‡ Interim since reduced, passed or deferred.
- ‡‡ Tax-free to non-residents on application.
- ◆ Figures or report awaited.
- ♥ Not officially UK listed; dealings permitted under Rule 535(4)(a).
- ✣ USM; not listed on Stock Exchange and company not subjected to same degree of regulation as listed securities.
- †† Dealt in under Rule 535(3).
- ¢ Price at time of suspension.
- ¶ Indicated dividend after pending scrip and/or rights issue: cover relates to previous dividend or forecast.
- ◆ Merger bid or reorganisation in progress.
- ♣ Not comparable.
- ◆ Same interim: reduced final and/or reduced earnings indicated.
- ♦ Forecast dividend; cover on earnings updated by latest interim statement.
- ‡ Cover allows for conversion of shares not now ranking for dividends or ranking only for restricted dividend.
- ☆ Cover does not allow for shares which may also rank for dividend at a future date. No P/E ratio usually provided.
- ‖ No par value.

B.Fr. Belgian Francs. Fr. French Francs. ¶¶ Yield based on assumption Treasury Bill Rate stays unchanged until maturity of stock. a Annualised dividend. b Figures based on prospectus or other offer estimate. c Cents. d Dividend rate paid or payable on part of capital, cover based on dividend on full capital. e Redemption yield. f Flat yield. g Assumed dividend and yield. h Assumed dividend and yield after scrip issue. j Payment from capital sources. k Kenya. m Interim higher than previous total. n Rights issue pending. q Earnings based on preliminary figures. s Dividend and yield exclude a special payment. t Indicated dividend: cover relates to previous dividend, P/E ratio based on latest annual earnings. u Forecast dividend: cover based on previous year's earnings. v Subject to local tax. x Dividend cover in excess of 100 times. y Dividend and yield based on merger terms. z Dividend and yield include a special payment: Cover does not apply to special payment. A Net dividend and yield. B Preference dividend passed or deferred. C Canadian. E Minimum tender price. F Dividend and yield based on prospectus or other official estimates for 1984-85. G Assumed dividend and yield after pending scrip and/or rights issue. H Dividend and yield based on prospectus or other official estimates for 1986. K Figures based on prospectus or official estimates for 1984. M Dividend and yield based on prospectus or other official estimates for 1985-86. N Dividend and yield based on prospectus or other official estimates for 1985. P Figures based on prospectus or other official estimates for 1983. Q Gross. T Figures assumed. Z Dividend total to date.

Abbreviations: xd ex dividend; xc ex scrip issue; xr ex rights; xa ex all; xd ex capital distribution.

REGIONAL & IRISH STOCKS

The following is a selection of Regional and Irish stocks, the latter being quoted in Irish currency.

Albany Inv 20p	102	...	Fin. 13% 97/02	£105¼	+¼
Craig & Rose £1	800	...	Arnotts	230	+5
Finlay Pkg. 5p	46	...	CPI Hldgs	59xd	...
Holt (Jos) 25p	700	...	Carroll Inds.	153	...
IoM Stm. £1	70	...	Dublin Gas	75	...
			Hall (R. & H.)	55	+3
IRISH			Heiton Hldgs.	23½	...
Fund 11¼% 1988	£100¼	..	Irish Ropes	45	...
Nat. 9¾% 84/89	£95¼		Unidare	131	...

"Recent Issues" and "Rights" Page 20
(International Edition Page 18)

BUSINESSMAN'S DIARY

UK TRADE FAIRS AND EXHIBITIONS

January 1-12
London International Boat Show (0932 54511) — Earls Court

January 9-12
Holiday and Travel Fair (021-780 4171) — NEC, Birmingham

January 11-16
Harrogate International Toy Fair (01-226 6653) — Harrogate

January 12-16
International Light Show (05884 658) — Olympia

January 13-16
Amusement Trades Exhibition (01-228 4107) — Olympia

January 14-17
Which Computer? Show (01-891 5051) — NEC, Birmingham

January 16-19
Ideal Home Exhibition (0202 296275) — Brighton

January 18-22
Stationery Industry Exhibition—STATINDEX (01-355 1200) — Olympia

January 21-23
Hirex Exhibition (01-688 7788) — Wembley Conference Centre

January 21-23
International Contract Flooring Exhibition (0990 243 66) — Novotel

January 29-31
The Videotex User Show (01-608 1161) — Barbican Centre

OVERSEAS TRADE FAIRS

December 17-19
Summer Travel Industry Exhibition—TOUR (01-437 2175) — Amsterdam

January 6-9
International Hotel and Catering Industries Trade Fair — HORECAVA (01-437 2175) — Amsterdam

January 7-9
Computers, Communications and Business Equipment Exhibition — INFO / SOUTHWEST (01-891 5051) — Dallas

January 9-14
International Lighting Show (01-439 3964) — Paris

January 11-19
International Caravan, Motor and Tourism Exhibition — CMT (01-236 0911) — Stuttgart

January 14-19
International Furniture Show (01-930 7251) — Cologne

January 15-18
Asian Aerospace Exhibition (01-891 5051) — Singapore

January 22-28
International Pollution Monitoring and Control Exhibition and Conference—ENVIROTECH (01-221 2043) — Bombay

January 24-27
Duty Free Exhibition (01-642 7688) — Dubai

BUSINESS AND MANAGEMENT CONFERENCES

December 16-17
DRI Europe: Oil markets — threats and opportunities (01-222 9571) — Mount Royal Hotel, W1

December 19
Sweet and Maxwell Professional Conferences: Developments in criminal law and sentencing (01-583 9855) — Manchester Business School

January 7-8
Unicom Seminars: Fundamentals of 3D graphics (01-940 7716) — Forum Hotel, SW7

January 13-14
Institute of Personnel Management: The secretary in personnel management (01-946 9100) — Kensington Close Hotel, W8

January 13-14
FT Conferences: Aerospace in Asia and the Pacific Basin (01-621 1355) — Singapore

January 13
Brunel Institute: How effective is your training function? (0895 56461) — Brunel University, Uxbridge

January 14-15
Crown Eagle Communications: Effective project management (01-242 4111) — Tower Hotel, E1

January 16
Oyez/IBC: Bankers' security and the new Insolvency act (01-236 4080) — Royal Lancaster Hotel, W2

January 20
Frost and Sullivan: The impact of emerging technologies on your firm (01-935 3190) — Hyatt Carlton Tower, W1

January 22
Brunel Institute: How effective is your personnel department? (0895 56461) — Brunel University, Uxbridge

January 26-27
Confederation of British Industry: Pakistan—Trade investment and investment opportunities for the UK (01-379 7460) — Karachi

January 28-30
Crown Eagle Communications: Advancing in management (01-242 4111) — Tower Hotel, E1

January 29
The Industrial Society: Industry year 1986 — ideas for industry year and how to make them happen. . . . (01-262 2401) — Moorgate, EC2

January 30-31
Euromoney Conferences: Securitisation (01-236 3288) — Hotel Inter-Continental, W1

February 3-7
Brunel Institute: Techniques of scenario planning (0895 56461) — Brunel University, Uxbridge

February 4-5
Crown Eagle Communications: Successful public relations (01-242 4111) — Tower Hotel, E1

February 6
Oyez/IBC: The Insolvency Act 1985 — the key issues (01-236 4080) — Barbican Centre, EC2

February 12-13
Risk Research Group: The London insurance market and its future (01-236 2175) — Hilton Hotel, W1

February 18
Longman Seminars: National Insurance contributions—problems and planning (01-242 4111) — Barbican Centre, EC2

Anyone wishing to attend any of the above events is advised to telephone the organisers to ensure that there has been no change in the details published.

CONSTRUCTION CONTRACTS

Spectacular hotel for Birmingham

Europe's most spectacular hotel—a giant 30-storey crystal tower—is to be built in Birmingham by TARMAC CONSTRUCTION.

Tarmac has a letter of intent from Hyatt International Hotels to build the £30m hotel which will complement the Birmingham international convention centre development, planned for the Broad Street area. The 350-bedroom hotel will be Birmingham's tallest building. The scheme requires an Urban Development Grant but it is hoped work will start in spring and be completed in 1989.

The hotel, which will be clad in silver reflective glass, will be linked to the convention centre by a bridge. Start date for the convention centre is awaiting the outcome of a public inquiry.

On the ground floor, the hotel lobby will open up into two restaurants, a bar and shopping arcade. Other facilities include a nightclub, casino, swimming pool, business centre and a multi-purpose ballroom and eating facility.

TSB training centre at Andover

Construction of a residential training centre at Andover for the TSB Trust Company has been awarded to WIMPEY CONSTRUCTION. The "design and build" contract is worth over £3m. The training centre, which will contain 32 bedrooms, lecture and seminar rooms, and dining and sports facilities will occupy about 3 acres of the 16-acre site purchased by Landers for the TSB at the end of 1984.

★

WIMPEY CONSTRUCTION UK has been awarded two housing contracts with a total value of £2.78m. The largest, awarded by the Secondary Housing Association (Cost Sales), and valued at £1.96m, is for 80 houses and bungalows in Greenfield Road, Pontnewydd, Cwmbran. The second contract, valued at £820,000 and awarded by Vale of Glamorgan Borough Council, is for construction of 26 houses in Beechwood Drive, Penarth.

★

Work has started on the final stage of the £3.5m project to convert the Corn Exchange, Cambridge, into a multi-purpose entertainment and conference centre. Cambridge City Council has awarded a £1.4m contract to JOHN LAING CONSTRUCTION.

★

WALTER LAWRENCE & SON has started work on construction of five laboratories for Blackheath High School for Girls, at a cost of £600,000.

£24m Army store

A £24m order for the design and construction of a storehouse for the Army has been won by a joint venture of two companies—DEXION and NORWEST HOLST.

The new storehouse, to be built at Donnington, near Telford, which will house a full range of Army supplies, is to replace the building destroyed by fire in June 1983. The contract was awarded by the PSA on behalf of the Ministry of Defence, and is for the design, construction, installation and commissioning of a fully automated warehouse. It is believed to be the largest order for an automated warehouse project of this kind ever placed in Europe.

The joint venture expects to take some 28 months to complete the work with handover due in February 1988. The basic concept comprises 10 high bay warehouses as spurs off a central spine, together with a low bay building for goods' receipts and despatch.

Total floor area of the complex is 34,000 sq m and consists of three main elements: Goods receipt and despatch building, 236m long, 44m wide and 6.5m to the eaves, with an office annex 57m by 11m; the spine, 215m long, 20m wide and 5.3m to the eaves; and 10 storage spurs, each 102m long, 18.5m wide and 20m to the eaves, with a total of 97,000 pallet locations.

A central computer system is linked to a DEC PDP mainframe with a series of local micros, one in each spur. This system has a failsafe facility which ensures that even if the mainframe is not operating, the local stations can retrieve equipment from the stores. Automation is being provided by 20 Dexion Courier storage and retrieval machines, served by 10 aisle transfer cars and 27 automatic guided vehicles. There is also an extensive automatic integrated conveyor network in each spur warehouse and the central spine as well as in the goods' inwards and outwards areas.

The buildings are clad with a composite roof and wall cladding system of profiled factory-coated steel sheeting, with curved eaves to soften the outline and ease the run-off of storm water. Generally, the cladding will be finished in a light colour, relieved by a contrasting darker colour to horizontal panels on the walls of the spurs and to the wall of the other buildings.

The whole layout and structure has been designed to ensure that no single catastrophe—fire, accident or equipment failure—can prevent the continued operation of the warehouse facilities.

Sindall builds TA centres

SINDALL CONSTRUCTION has been awarded seven contracts worth a total of £17m. Among these are two Territorial Army centres in Cambridge on Coldhams Lane (£2.5m) and Cherry Hinton Rd (£2.8m) for the Territorial Auxiliary and Volunteer Reserve Association; a computer centre at Wokingham, Berkshire, for the Central Electricity Generating Board (£7.3m); and the refurbishment of the Law Courts at the Middlesex Guildhall in Parliament Square, London, for the Property Services Agency (£3.3m). All four contracts are due for completion over the summer of 1987.

A contract valued at £5m for mechanical and electrical services in Chase Manhattan Bank's UK operations and administration centre, Littledown, Bournemouth, has been awarded to YOUNG AUSTEN AND YOUNG, building services division of the Trafalgar House Group. The contract includes air-conditioning, heating, plumbing, lighting, security, fire prevention.

★

LEEDS DEMOLITION, a member of the GMI Group, has gained a contract worth over £100,000 from Blue Circle Industries to remove plant and buildings and level the site of the Holborough Cement Works at Snodland.

Housing orders for Mowlem

Housing contracts in Wembley, Milton Keynes, Stevenage and Hungerford, together worth £8.2m, have been won by JOHN MOWLEM. The largest, worth £3.7m, is a design and construct contract to build 82 houses and 59 flats for Metropolitan Housing Trust at Ledway Drive, Wembley. The development will comprise a mix of two, three and four-bedroom houses and one and two-bedroom flats. All will be of traditional construction and six houses will be specially designed for the disabled. Some of the flats will be for sale and others will be let on a fair rent basis. Mowlem's contract will also include landscaping and the provision of roads and parking spaces. MDA Management are building project consultants to the scheme. Work has started for completion in July 1987.

At Shenley Church End, Milton Keynes, Mowlem is to build 89 homes in a mixed development of houses and bungalows, under a £2.1m design and construct contract for Milton Keynes Development Corporation. All will be of traditional construction and the contract includes services, drainage and external work. Work has started for completion in January 1987.

At Stevenage, Mowlem has a further contract, worth £1.6m, from Stevenage Borough Council. Starting this month, for completion in May 1987, the order is for 49 houses and 11 bungalows in one and two-storey blocks, together with 25 garages and external works. All will be of traditional construction with brick cladding.

British Airports Authority has awarded FAIRCLOUGH BUILDING a contract valued at nearly £700,000 for an extension to Terminal 2 at Heathrow Airport. This comprises a single-storey extension to the passenger check-in hall, and a plant room.

The Nuffield Trust has awarded a £2m building alteration and extension contract at Purey Cust Hospital in York to WM. IRWIN AND CO (NORTH). Work starts on site this month and will last for about two years.

WIMPENNY, Huddersfield, has orders worth £2.5m, including a contract from British Gas for the design, management and construction of the new North Eastern Gas communications and instrumentation building at Holmes St, Leeds.

This week's business in parliament

TODAY

Commons: Private members' motions until 7 pm. Remaining stages of the Education (Amendment) Bill. Motion on Education Support Grants (Amendment) (No 2) Regulations. Oppose private business after 7 pm.

Lords: Three Fraserburgh Harbour Order Confirmation Bills, Report. Shops Bill, Committee. Weights and Measures Act 1963 (Various Foods) Amendment No 2 Order, 1985, Motion for approval. Prevention of Oil Pollution Bill, Second Reading.

Select Committees: Treasury and Civil Service — Subject: Winter Supplementary Estimate, Class IV, Vote 26—sale of shares on Britoil. Witnesses: HM Treasury officials (Room 15, 4.30 pm). Public Accounts—Subject: Economy of stores support, Royal Air Force stores; Stocktaking at RAF supply depots. Witness: Sir Clive Whitmore, KCB CVO, Ministry of Defence (Room 16, 5 pm).

TOMORROW

Commons: Estimates day—consideration of estimate, Class II, Vote 7 (Overseas aid in respect of famine in Africa). Debate on the First Report from the Select Committee on Members' Interests. Motion relating to the Water authorities (Return on Assets) (No 2) Order.

Lords: Agricultural Holdings Bill, Second Reading. Three Fraserburgh Harbour Order Confirmation Bill, Third Reading. Shops Bill, Committee. Social Security (Contribution, Re-rating) Order 1985, motion for approval.

Selection Committees: Education, Science and Arts—Subject: Arts scrutiny session. Witnesses: Richard Luce, MP, Minister for the Arts, and officials from the Office of Arts and Libraries (Room 15, 10.45 am). Energy—Subject: Regulation of the Gas Industry. Witness: Rt Hon Peter Walker, MP, Energy Secretary (Room 8, 3 pm). Parliamentary Commissioner for Administration—Subject: Reports of the Health Service Commissioner 1984-85. Witnesses: Lewisham and North Southwark Health Authority and South Sefton Health Authority (Room 6, 4.30 pm). Committee on a Private Bill—Felixstowe Dock and Railway (Room 5, 10.30 am).

WEDNESDAY

Commons: Motion for the Christmas Adjournment — that the House should rise on Friday, December 20, and return on Monday, January 13, 1986. Proceedings of the Consolidated Fund Bill.

Lords: Short debate on community education in the light of changing employment prospects and needs. Sort debate on the report of the all-party Parliamentary Group on Overseas Development entitled UK aid to African agriculture.

Select Committees: Defence—Subject: The implications for the UK of strategic defence. Witnesses: Officials of the Foreign and Commonwealth Office (Room 15, 10.30 am). Treasury and Civil Service Sub-Committee—Subject: Civil servants and ministers; duties and responsibilities. Witness: The Campaign for Freedom of Information; Mr Clive Ponting (Room 6, 4.15 pm). Committee on a Private Bill—Felixstowe Dock and Railway (Room 5, 10.30 am). Unopposed Bills—Pools Borough Council; Berkshire (Room 9, 4 pm).

THURSDAY

Commons: Second Reading of the Building Societies Bill. Motion on the Legal Services and Assistance (Amendment) (No 2) Regulations and on the Legal Advice and Assistance Regulations.

Lords: Consolidated Fund Bill, all stages. Atomic Energy Authority Bill, Third Reading. Commonwealth Development Corporation Bill, Committee. Northern Ireland (Loans) Bill, Second Reading. Motions for approval on the Education and Libraries (Northern Ireland) Order 1985, the Hill Livestock (Compensatory Allowances) (Amendment) Regulations 1985, the Security for Private Road Works (Scotland) Regulations 1985, the Summer Time Order 1985, the Betting Gaming and Lotteries Act (Schedule 4) (Amendment) Order 1985, and other regulations.

FRIDAY

Commons: Adjournment motions.

Company Notices

Clubs

WORLD STOCK MARKETS

Indices

NEW YORK - DOW JONES

	Dec 13	Dec 12	Dec 11	Dec 10	Dec 9	Dec 5	1985 High	1985 Low	Since Compilation High	Since Compilation Low
Industrials	1,535.21	1,511.24	1,511.70	1,498.20	1,487.82	1,477.18	1511.70 (11/12)	184.88 (4/1)	1535.21 (13/12/85)	41.22 (2/7/32)
Transport	722.61	710.32	715.12	703.77	698.78	693.58	715.12 (11/12)	553.03 (4/1)	722.61 (13/12/85)	12.32 (8/7/32)
Utilities	188.80	187.01	187.47	188.18	185.78	185.57	168.81 (12/7)	146.54 (4/1)	168.81 (12/7/85)	18.5 (28/4/42)
Trading vol	177m	178m	178m	195m	144m	128m	–	–	–	–

	Dec 6	Nov 29	Nov 22	Year Ago (Approx)
Ind Div Yield %	4.28	4.29	4.32	5.04

STANDARD AND POORS

	Dec 13	Dec 12	Dec 11	Dec 10	Dec 9	Dec 6	1985 High	1985 Low	Since Compilation High	Since Compilation Low
Industrials	233.36	229.56	228.75	225.86	227.82	225.85	228.75 (11/12)	128.24 (4/1)	233.36 (13/12/85)	3.62 (30/6/32)
Composite	209.93	206.73	206.31	204.40	204.52	202.99	206.31 (11/12)	163.68 (4/1)	209.93 (13/12/85)	4.40 (1/6/32)

	Dec 11	Dec 4	Nov 27	Year Ago (Approx)
Ind div yield %	3.48	3.50	3.52	4.12
Ind. P/E Ratio	14.00	13.81	13.82	10.00
Long Gov Bond Yield	9.54	8.84	9.00	11.37

N.Y.S.E. ALL COMMON

Dec 13	Dec 12	Dec 11	Dec 10	1985 High	1985 Low
120.83	119.12	118.00	117.72	120.83 (13/12)	94.60 (4/1)

RISES AND FALLS	Dec 13	Dec 11	Dec 10
Issues traded	2,072	2,087	2,084
Rises	1,285	1,118	873
Falls	422	588	783
Unchanged	365	383	424

NEW YORK ACTIVE STOCKS

Friday	Stocks traded	Closing price	Change on day
RCA	3,527,100	59⅝	+ ⅞
Reynolds Ind.	3,088,900	32	+ 3⅞
S. Dego Gas	2,829,600	28⅛	+ ⅛
Union Carbide	2,706,800	69⅜	+ 1⅞
ITT Corp	2,603,700	36⅝	+ 1
Sears Roebuck	2,587,700	40⅞	+ ⅞
Texaco	2,262,600	29⅞	+ ⅞
Philip Morris	1,970,000	85⅛	+ 4⅞
Midcon Corp	1,925,800	62⅜	+ 2⅝
BankAmerica	1,917,500	15⅞	+ ⅞

TORONTO

	Dec 13	Dec 12	Dec 11	Dec 10	1985 High	1985 Low
Metals & Minls		2,818.37	2,801.8	2,819.5	2188.7 (13/2)	1740.82 (31/10)
Composite	2,866.8	2,851.7	2,843.5	2,851.50	2884.8 (4/12)	2348.5 (8/1)
MONTREAL Portfolio		139.48	139.29	138.71	139.76 (4/12)	117.88 (4/1)

* Indicates pre-close figure

	Dec. 15	Dec. 12	Dec. 11	Dec. 10	1985 High	1985 Low
AUSTRALIA All Ord. (1/1/80)	976.6	977.7	980.7	980.5	1002.2 (25/10)	715.5 (7/1)
Metals & Minls. (1/1/80)	472.8	476.7	479.2	479.0	583.8 (20/5)	382.5 (7/1)
AUSTRIA Credit Aktien (2/1/62)	118.00	116.07	115.87	115.80	121.95 (28/11)	58.21 (24/1)
BELGIUM Brussels SE (1/1/80)	2877.01	2864.66	2848.15	2875.91	2986.56 (25/11)	2090.7 (15/1)
DENMARK Copenhagen SE (3/1/83)	231.83	234.05	255.54	258.46	257.57 (24/10)	156.44 (8/1)
FRANCE CAC General (31/12/82)	258.6	248.9	247.3	247.6	250.30 (13/12)	180.9 (8/1)
Ind Tendance (28/12/84)	145.4	144.5	144.0	145.8	145.40 (13/12)	100.1 (3/1)
GERMANY FAZ Aktien (31/12/58)	616.6	608.4	592.55	585.10	610.34 (16/12)	382.59 (3/1)
Commerzbank (1/12/53)	1811.2	1782.5	1145.3	1739.1	1811.2 (13/12)	1111.6 (5/1)
HONG KONG Hang Seng Bank (31/7/64)	1735.58	1740.40	1725.05	1726.29	1762.51 (21/11)	1220.74 (2/1)
ITALY Banca Comm Ital. (1972)	454.88	437.40	437.68	434.30	448.54 (6/12)	228.58 (2/1)
JAPAN** Nikkei (16/5/49)	13107.30	13050.28	12972.6	12850.8	13107.0 (13/12)	11545.2 (6/1)
Tokyo SE New (4/1/68)	1047.57	1044.11	1031.59	1016.45	1057.55 (10/7)	916.95 (8/1)
NETHERLANDS ANP-CBS General (1970)	228.5	226.1	224.5	225.5	228.1 (29/11)	185.8 (8/1)
ANP-CBS Indust (1970)	220.0	217.5	215.7	216.5	220.9 (13/12)	147.9 (8/1)
NORWAY Oslo SE (4/1/83)	388.28	387.07	388.16	395.90	412.88 (12/11)	288.13 (2/1)
SINGAPORE Straits Times (1966)	655.13	644.09	647.21	649.14	666.75 (16/12)	309.54 (6/12)
SOUTH AFRICA JSE Gold (28/9/78)	—	1127.4	1153.2	1128.5	1277.1 (25/11)	829.3 (5/8)
JSE Indust (28/9/78)	—	1054.2	1035.5	1030.8	1048.2 (26/11)	767.1 (7/3)
SPAIN Madrid SE (28/12/84)	134.85	133.27	132.38	131.54	137.34 (21/11)	101.49 (2/1)
SWEDEN Jacobson & P (1/1/58)	1780.67	1693.36	1657.65	1616.85	1780.87 (13/12)	1285.32 (9/7)
SWITZERLAND Swiss BankCpn (31/12/58)	555.4	553.2	555.6	546.5	553.6 (11/12)	388.7 (3/1)
WORLD Capital Intl. (1/1/70)	—	249.2	248.6	245.2	245.7 (27/11)	164.6 (8/1)

** Saturday December 7. Japan Nikkei 12,790.9. TSE 1,010.37.

Base value of all indices is 100, except: JSE Gold—255.7; JSE Industrial—264.3; Australia All Ordinary and Metals—500; NYSE All Common—50; Standard and Poors—10; and Toronto Composite and Metals—1,000. Toronto indices based 1975 and Montreal Portfolio 4/1/83. † Excluding bonds. ‡ 400 Industrials plus 40 Utilities, 40 Financials and 20 Transports. c Closed. u Unavailable.

AUSTRIA

1985 High | Low | Dec. 13 | Price Sch %

[illegible]

BELGIUM/LUXEMBOURG

[illegible]

FRANCE

[illegible]

SWITZERLAND

[illegible]

HONG KONG

[illegible]

AUSTRALIA

[illegible]

SPAIN

[illegible]

NORWAY

[illegible]

GERMANY

[illegible]

SWEDEN

[illegible]

SINGAPORE

[illegible]

DENMARK

[illegible]

SOUTH AFRICA

[illegible]

NETHERLANDS

[illegible]

JAPAN

[illegible]

ITALY

[illegible]

NOTES—Prices on this page are as quoted on the individual exchanges and are last traded prices. § Dealings suspended. xd Ex dividend. xc Ex scrip issue. xr Ex rights. xa Ex all.

CANADA

TORONTO

Closing prices December 13

[illegible]

MONTREAL

Closing prices December 13

[illegible]

Total Sales 3,282,511 shares

F—No voting rights or restricted voting rights.

OVER-THE-COUNTER

Nasdaq national market, closing prices December 13

Continued from Page 35

[illegible]

NEW YORK CLOSING PRICES

12 Month High | Low | Stock | Div. | Yld. | P/E | Sls 100s | High | Low | Close Quote | Ch'ge Prev. Close

Continued from Page 35

[illegible]

Closing prices, December 13

NEW YORK STOCK EXCHANGE COMPOSITE CLOSING PRICES

12 Month High	12 Month Low	Stock	Div.	Yld.	P/E	Sls 100s	High	Low	Close Quote	Ch'ge Prev. Close
25¾	18	AAR	.56	2.3	16	128	25⅛	24⅞	24⅞	−¼
20⅛	10⅛	AGS			19	290	20⅞	19½	19⅝	−⅛
15⅜	8⅞	AMCA				17	11½	11⅜	11½	+⅛
50¾	33¼	AMR			6	8979	45¼	44⅛	44⅝	+½
24¾	18⅝	AMR pf2.18		9.2		6	23⅝	23⅝	23⅝	
25⅞	23¼	ANR pf2.67		11.		2	23¾	23¾	23¾	−¼
22	16	ANR pf2.12		10.		2	20½	20½	20½	
11⅞	7⅝	APL			5	57	10⅝	10½	10⅝	+⅛
18¼	9	ARX			16	238	u16¾	16¼	16⅝	+⅜
55⅝	32¾	ASA	2a	5.9		289	34⅞	24¼	34¼	+¼
27	10½	AVX	.32	2.3		632	14⅝	13⅞	14⅛	−½
28⅛	20⅝	AZP	2.72	10.	6	1944	26⅞	26½	26¾	
66⅞	38⅝	AbtLab1.40		2.1	16	4394	u69½	66⅛	67⅝	+1½
25⅞	19⅝	AccoWd.50		2.0	16	173	25⅛	24⅝	25⅛	
24¾	10	AcmeC .40		3.3	17	323	12⅜	12	12⅛	−⅝
10½	7	AcmeE .32b		4.5	11	26	7¼	7⅛	7⅛	−⅛
19⅝	15½	AdaEx 1.92e		10.		99	19⅜	19	19¼	+⅜
21⅞	13⅝	AdmMl .40		1.8	9	06	u22	21½	21⅞	+⅜
17¼	6⅝	AdvSys .53t		2.9	16	496	u18¼	17½	18⅛	+½
36⅝	22⅛	AMD			43	5584	30⅜	29½	28½	−⅝
12⅜	10⅝	Adobe n				152	11⅝	11⅜	11⅝	+¼
17	14⅝	Adob pfA				12	15⅜	15⅜	15⅜	−⅛
17⅝	16¼	Adob pfB				52	17⅜	17⅛	17⅜	+⅛
12¾	7	Advest .12a		1.0	18	614	12¾	12¼	12½	+¼
53⅛	34¾	AetnLf 2.64		5.0	17	7822	52⅝	51¾	52⅜	+⅞
57½	52¾	AetL pf5.19e		9.8		23	53⅛	53	53⅛	+⅛
48⅛	22¾	Ahmns 1.20		2.6	6	1207	47¼	46⅝	47	+⅛
3⅝	2½	Aileen				117	3¼	3⅛	3⅛	−⅛

Continued on Page 35

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NYSE COMPOSITE CLOSING PRICES

Continued from Page 34

12 Month High	Low	Stock	Div.	Yld.	P/E	Sls 100s	High	Low	Close	Ch'ge Prev. Close
34⅝	19⅞	Whitehl			10	744	26⅛	24	26⅛	+¾
26½	17¼	Whittak .60		2.9	10	278	21⅛	21	21	
13¾	6⅝	Wiebldt		3.3		18	13⅜	13¼	13⅜	+⅛
15⅛	8	Wilfred .12		6	14	56	13¾	13¼	13¼	-¼

Continued on Page 33

Sales figures are unofficial. Yearly highs and lows reflect the previous 52 weeks plus the current week, but not the latest trading day. Where a split or stock dividend amounting to 25 per cent or more has been paid, the year's high-low range and dividend are shown for the new stock only. Unless otherwise noted, rates of dividends are annual disbursements based on the latest declaration.

a–dividend also extra(s). b–annual rate of dividend plus stock dividend. c–liquidating dividend. cld–called. d–new yearly low. e–dividend declared or paid in preceding 12 months. g–dividend in Canadian funds, subject to 15% non-residence tax. i–dividend declared after split-up or stock dividend. j–dividend paid this year, omitted, deferred, or no action taken at latest dividend meeting. k–dividend declared or paid this year, an accumulative issue with dividends in arrears. n–new issue in the past 52 weeks. The high-low range begins with the start of trading. nd–next day delivery. P/E–price-earnings ratio. r–dividend declared or paid in preceding 12 months, plus stock dividend. s–stock split. Dividends begins with date of split. sls–sales. t–dividend paid in stock in preceding 12 months, estimated cash value on ex-dividend or ex-distribution date. u–new yearly high. v–trading halted. vi–in bankruptcy or receivership or being reorganised under the Bankruptcy Act, or securities assumed by such companies. wd–distributed. wi–when issued. ww–with warrants. x–ex-dividend or ex-rights. xdis–ex-distribution. xw–without warrants. y–ex-dividend and sales in full. yld–yield. z–sales in full.

AMEX COMPOSITE CLOSING PRICES

Closing prices, December 13

OVER-THE-COUNTER

Nasdaq national market, closing prices December 13

Continued on Page 33

CURRENCIES, MONEY and CAPITAL MARKETS

FOREIGN EXCHANGES

Sterling slides on oil

BY COLIN MILLHAM

Sterling and the dollar finished on a calm note last week after a period of nervousness, when the pound was at a six month low, and the dollar gained enough strength to prompt intervention by central banks.

Ministers from the Organisation of Petroleum Exporting Countries played down the importance of their communique after the Geneva meeting, but the initial reaction to the statement was to sharply depress spot oil prices and push down the value of the pound. A steady increase in oil production by Saudi Arabia has left Opec quota levels about 2m barrels above the daily ceiling of 16m barrels, and the conference appeared to be defending this level, and intimating that prices would be allowed to fall as a result.

This was seen as a move to put pressure on non-Opec producers, and particularly Britain, where Government revenues from North Sea production have a large impact on the economy, and will decide the size of next year's public sector borrowing requirement and the scale of any tax cuts the Chancellor of the Exchequer is able to provide in the 1986 Budget.

Financial markets began to think in terms of $20 a barrel for oil, and in early trading on Wednesday North Sea crude for January loading was quoted at $21.60, compared with over $30 only a few weeks ago. It was estimated that to compensate for the fall to $20, the pound would have to decline to $1.10, in order to maintain the amount of money flowing into the Treasury.

Three factors helped the pound recover. The first was intervention by central banks, led by the German Bundesbank. This was not specifically a move to supply support for sterling, but was largely the result of the pound's weakness. Speculative money, looking for the best return had been tempted away from the US, where economic growth appeared to be waning and interest rates falling, into a major financial centre offering high returns and flexible markets. This was London, but the oil price fears led to a flight back into the dollar. The US currency rose sharply, but just before it touched DM 2.56 the Bundesbank stepped in. Thereafter the market remained nervous that the central banks would strike again, but the intervention was not on a large scale, and was probably meant as a reminder that the Group of Five agreement to push down the value of the dollar, made on September 22, was still official policy.

There appeared to be no desire by the central banks to set new lower levels for the dollar, but any move by the market to push the US currency into a higher trading range was obviously unwelcome.

The second factor was the UK Government's commitment to high interest rates and a strong pound.

Thirdly the Opec ministers appeared worried they may have overplayed their hand, and were at pains to deny any suggestion of an oil price war.

Sterling finished the week around the middle of its range, and some 3 cents above the low touched on Wednesday. It was however still much lower against the D-mark led EMS block of currencies, and against the currency of one of the world's largest oil importers, the Japanese yen.

£ IN NEW YORK

	Dec. 13	Prev. close
£ Spot	$1.4350-1.4360	$1.4345-1.4355
1 month	0.42-0.40pm	0.43-0.41pm
3 months	1.25-1.23pm	1.28-1.25pm
12 months	4.35-4.28pm	4.45-4.30pm

Forward premiums and discounts apply to the U.S. dollar.

CURRENCY MOVEMENTS

Dec. 13	Bank of England Index	Morgan Guaranty Change %
Sterling	78.7	−18.1
U.S. dollar	127.1	+10.3
Canadian dollar	81.5	−10.8
Austrian schilling	180.0	+5.0
Belgian franc	92.3	−0.8
Danish Kroner	83.8	−2.5
Deutsche mark	130.0	+11.3
Swiss franc	161.0	+12.6
Guilder	180.1	+6.6
French franc	68.6	−11.8
Lire	44.1	−10.8
Yen	177.5	+63.4

Morgan Guaranty changes: average 1980-1982=100. Bank of England Index (base average 1975=100).

OTHER CURRENCIES

Dec. 13	£	$
Arg'tina	1.1540-1.1563	0.8000-0.8010
Aus'alia	2.1010-2.1060	1.4560-1.4605
Brazil	14,144-14,006	9,805-9,866
Finland	7.8810-7.9110	5.4860-5.4880
Greece	214.07-218.60	148.40-151.60
H'kong	11.2226-11.2825	7.8045-7.8060
Iran	101.60*	85.00*
Kuwait	0.4181-0.4186	0.29086-0.29010
Lux'burg	73.80-73.90	51.35-51.45
Malay'sia	3.4920-3.5020	0.4285-0.4305
N'Z'land	2.7526-2.7625	1.0100-1.0175
Saudi Ar.	5.0456-5.0510	3.6505-3.6515
Sin'pore	3.0520-3.0600	2.1000-2.1345
S.Af.(Cm)	3.7740-3.7940	2.6045-2.6380
S.Af.(Fn)	4.8540-5.0000	3.3615-3.4785
U.A.E.	5.2765-5.2820	3.6720-3.6733

* Selling rate.

CURRENCY RATES

Dec. 13	Bank rate %	Special Drawing Rights	European Currency Unit
Sterling	—	0.755376	0.604100
U.S.$	7½	1.06963	0.871788
Canadian $	9.20	*	1.21179
Austria Sch.	4	19.0701	15.4130
Belgian Fr	8¾	56.0308	44.8056
Danish Kr	7	9.94015	7.05000
D mark	4	2.74288	2.19030
Guilder	5	3.08856	2.46060
French Fr	9½	N/A	6.71073
Lira	15½	N/A	1497.30
Yen	5	220.438	176.310
Norway Kr	8	8.86291	6.68580
Span'h Pta	—	N/A	135.058
Swedish Kr	10½	8.36870	6.70101
Swiss Fr	4	2.89068	1.83180
Greek Dr'ch	20½	163.501	130.856
Irish Punt	—	N/A	0.711874

* C$/SDR rate for December 12 1.51083

POUND SPOT—FORWARD AGAINST POUND

Dec 13	Day's spread	Close	One month	% p.a.	Three months	% p.a.
US	1.4345-1.4465	1.4365-1.4375	0.43-0.40c pm	3.47	1.25-1.20pm	3.41
Canada	1.9967-2.0065	1.9967-2.0003	0.01c pm-par	0.03	0.02-0.01pm	0.03
Nethlnd.	4.06½-4.09	4.07½-4.08½	2⅛-1⅞c pm	5.88	5¾-5⅜pm	5.45
Belgium	73.75-74.10	73.80-73.90	20-15c pm	2.84	58-57pm	2.84
Denmark	13.13½-13.17¼	13.13¼-13.14¼	2⅞-2ore pm	2.23	8-7pm	2.28
Ireland	1.1723-1.1786	1.1751-1.1761	0.19-0.06p pm	1.28	0.37-0.03pm	0.68
W. Ger.	3.61-3.63¼†	3.61½-3.62½†	2¼-2pf pm	7.04	6½-5¾pm	6.66
Portugal	229¾-232½	230-231	145-440c dis	−10.23	445-1250dis	−14.71
Spain	224½-226	224½-225½	45-85c dis	−3.47	205-320dis	−4.67
Italy	2467½-2480	2476-2477	15-21lire dis	−8.73	30-38dis	−5.46
Norway	11.02-11.07	11.02-11.03	⅝-1¼ore dis	−1.03	2½-3dis	−0.95
France	11.06½-11.12¼	11.09½-11.10½	⅜c pm-½ dis	−0.51	1¾-3⅛dis	−0.97
Sweden	11.05-11.09½	11.05¼-11.06¼	¼-1¾ore dis	−1.10	1½-2⅛dis	−0.75
Japan	290¼-292	290½-291½	0.09-0.06y pm	0.31	0.28-0.26pm	0.36
Austria	25.45-25.51	25.45-25.48	10⅝-8⅜gro pm	4.56	32¾-27⅛pm	4.73
Switz.	3.02-3.03½	3.02½-3.03½	2-1¾c pm	7.43	5¾-5½pm	7.18

Belgian rate is for convertible francs. Financial franc 74.30-74.40. Six-month forward dollar 2.47-2.43c pm. 12-month 4.36-4.26c pm. † Correction (Dec 12). D Mark spread 2.58¾-3.63½, close 3.61½-3.62½.

DOLLAR SPOT—FORWARD AGAINST DOLLAR

Dec 13	Day's spread	Close	One month	% p.a.	Three months	% p.a.
UK†	1.4345-1.4465	1.4365-1.4375	0.43-0.40c pm	3.47	1.25-1.20pm	0.41
Ireland†	1.2206-1.2293	1.2218-1.2228	0.27-0.17c pm	2.15	1.00-0.70pm	2.77
Canada	1.3888-1.3900	1.3895-1.3900	0.11-0.14c dis	−1.08	0.35-0.40dis	−1.08
Nethlnd.	2.8200-2.8420	2.8410-2.8420	0.54-0.51c pm	2.23	1.43-1.40pm	2.00
Belgium	51.25-51.48	51.35-51.45	1-2½c dis	−0.41	4-7dis	−0.43
Denmark	9.10½-9.14½	9.14-9.14½	¼-1¾ore dis	−1.10	1⅞-2¾dis	−0.93
W. Ger.	2.5060-2.5230	2.5200-2.5210	0.72-0.68pf pm	3.36	2.02-1.97pm	3.17
Portugal	160-161½	160½-161½	150-350c dis	−18.69	450-1000dis	−18.07
Spain	155.70-156.60	155.90-156.00	60-120c dis	−8.32	250-325dis	−7.37
Italy	1,712-1,724	1,723-1,724	15-16 lire dis	−11.54	35-38dis	−8.62
Norway	7.65½-7.68	7.67-7.67½	2½-3ore dis	−4.30	8¼-8¾dis	−4.43
France	7.67¼-7.72¾	7.72¼-7.72¾	2-3c dis	−3.89	7¾-8⅛dis	−4.41
Sweden	7.67½-7.69½	7.69¼-7.69¾	2¼-3¼ore dis	−4.68	8-8½dis	−4.29
Japan	201.65-202.85	202.45-202.55	0.05-0.08y dis	−0.39	0.10-0.05pm	0.10
Austria	17.63-17.74	17.67¼-17.67½	1½-⅛gro pm	0.81	6½-4pm	1.10
Switz.	2.0955-2.1100	2.1070-2.1080	0.70-0.65c pm	3.85	2.03-1.98pm	3.82

† UK and Ireland are quoted in US currency. Forward premiums and discounts apply to the US dollar and not to the individual currency. Belgian rate is for convertible francs. Financial franc 51.70-51.80.

FORWARD RATES AGAINST STERLING

	Spot	1-month	3-month	6-month	12-month
Dollar	1.4370	1.4329	1.4246	1.4125	1.3939
D-Mark	3.6225	3.6020	3.5633	3.5061	3.4088
French Franc	11.10	11.0963	11.0736	11.0774	11.1193
Swiss Franc	3.0275	3.0094	2.9748	2.9228	2.8294
Japanese Yen	291.00	290.25	288.36	285.15	279.85

EMS EUROPEAN CURRENCY UNIT RATES

	Ecu central rates	Currency amounts against Ecu December 13	% change from central rate	% change adjusted for divergence	Divergence limit %
Belgian Franc	44.8320	44.8056	−0.06	+1.10	±1.5425
Danish Krone	8.12857	7.95290	−2.10	−0.92	±1.6421
German D-mark	2.23840	2.19299	−2.03	−0.79	±1.1456
French Franc	6.86402	6.71278	−2.20	−0.96	±1.3654
Dutch Guilder	2.52208	2.46960	−2.08	−0.84	±1.5162
Irish Punt	0.724578	0.711374	−1.82	−0.58	±1.6673
Italian Lira	1520.60	1497.30	−1.53	−1.21	±4.0856

Changes are for Ecu, therefore positive change denotes a weak currency. Adjustment calculated by Financial Times.

FINANCIAL FUTURES

POUND—$ (FOREIGN EXCHANGE)

Spot	1-mth.	3-mth.	6-mth.	12-mth.
1.4370	1.4323	1.4248	1.4125	1.3939

IMM—STERLING $e per £

	Close	High	Low	Prev
Dec	1.4355	1.4445	1.4336	1.4325
March	1.4225	1.4310	1.4210	1.4200
June	1.4100	1.4180	1.4090	1.4070
Sept	1.4000	—	—	1.3976
Dec	1.3920	—	—	1.3900

LIFFE—STERLING £25,000 $ per £

	Close	High	Low	Prev
March	1.4245	1.4330	1.4240	1.4247
June	1.4125	1.4180	1.4125	1.4127
Sept	1.4025	1.4025	1.4025	1.4032
Dec	1.4370	1.4443	1.4364	1.4376

Est. Volume 524 (145)
Previous day's open int. 3,687 (3,693)

LIFFE—DEUTSCHE MARKS DM125,000 $ per DM

	Close	High	Low	Prev
March	0.3999	0.4016	0.3999	0.4009
June	0.4029	0.4029	0.4029	0.4040

Est. Volume 38 (60)
Previous day's open int. 216 (209)

CHICAGO

US TREASURY BONDS (CBT) 8% $100,000 32nds of 100%

	Close	High	Low	Prev
Dec	84-13	84-10	84-06	83-28
March	83-07	83-12	82-31	82-21
June	82-04	82-08	81-27	81-18
Sept	81-08	81-09	80-29	80-15
Dec	80-11	80-10	80-00	79-18
March	79-25	79-25	79-13	78-25
June	79-07	79-07	78-27	78-03
Sept	—	—	—	—
Dec	78-11	78-11	77-31	77-00
March	77-00	—	—	76-10

US TREASURY BILLS (IMM) $1m points of 100%

	Close	High	Low	Prev
Dec	93.06	93.11	92.99	92.98
March	93.29	93.32	93.26	93.23
June	93.16	93.20	93.13	93.12
Sept	92.90	92.94	92.89	92.87
Dec	92.60	92.67	92.59	92.56
March	92.32	92.38	92.30	92.30
June	92.06	92.12	92.03	92.04
Sept	91.82	91.88	91.80	91.80

CERT. DEPOSIT (IMM) $1m points of 100%

	Close	High	Low	Prev
Dec	92.40	92.44	92.29	92.28
March	92.65	92.68	92.64	92.59
June	92.46	—	—	92.41
Sept	92.18	—	—	92.11

THREE-MONTH EURODOLLAR (IMM) $1m points of 100%

	Close	High	Low	Prev
Dec	92.05	92.11	92.03	92.03
March	92.32	92.38	92.29	92.27
June	92.15	92.22	92.14	92.10
Sept	91.87	91.95	91.86	91.82
Dec	91.57	91.66	91.56	91.52
March	91.28	91.36	91.25	91.23
June	91.00	91.08	90.98	90.95
Sept	90.73	90.82	90.73	90.68

LIFFE—EURODOLLAR OPTIONS $1m points of 100%

Strike price	Calls—Last Dec	March	June	Vol	Puts—Last Dec	March	June	Vol
90.00	2.11	2.36	2.23	—	—	—	0.01	—
90.50	1.61	1.86	1.75	—	—	—	0.03	—
91.00	1.11	1.37	1.30	—	—	0.01	0.08	—
91.50	0.61	0.91	0.88	50	—	0.05	0.15	50
92.00	0.12	0.50	0.54	152	0.01	0.14	0.32	115
92.50	—	0.22	0.28	25	0.39	0.36	0.59	—
93.00	—	0.06	0.12	—	0.89	0.70	0.90	—

Previous day's open int: Calls 2,666 Puts 3,596

LIFFE £/$ OPTIONS £25,000 (cents per £1)

Strike price	Calls—Last Dec	March	June	Vol	Puts—Last Dec	March	June	Vol
1.20	23.70	23.64	23.64	—	—	0.04	0.43	—
1.25	18.70	18.64	16.64	—	—	0.17	0.98	—
1.30	13.70	13.84	13.64	—	—	0.56	1.83	—
1.35	8.70	8.90	8.63	—	—	1.45	3.43	—
1.40	3.70	5.57	6.80	—	—	3.12	5.55	76
1.45	—	3.16	4.57	1071	1.36	5.70	8.32	139
1.50	—	1.60	2.93	16	6.36	9.15	11.66	—

Previous day's open int: Calls 9,960 Puts 17,380

LONDON SE £/$ OPTIONS £12,500 (cents per £1)

Strike price	Calls—Last Dec	Jan	Feb	Vol	Puts—Last Dec	Jan	Feb	Vol
1.20	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
1.25	—	—	—	—	—	—	—	—
1.30	—	—	—	—	—	—	—	—
1.35	—	—	—	—	—	—	—	—
1.40	—	—	—	—	—	—	—	—
1.50	—	—	—	—	—	—	—	—

Previous day's open int: Calls N/A Puts N/A

PHILADELPHIA SE £/$ OPTIONS

Strike price	Calls—Last Dec	Jan	Feb	Vol	Puts—Last Dec	Jan	Feb	Vol
1.20	23.30	—	—	4	—	—	—	—
1.25	18.85	—	—	3	—	—	—	—
1.30	13.80	—	—	10	—	—	—	—
1.35	0.85	—	—	2	—	0.30	—	10
1.40	3.45	4.15	—	103	—	0.95	2.06	162
1.45	0.05	1.25	—	255	1.55	3.00	4.20	433
1.50	—	—	1.00	1	5.50	—	—	5

Previous day's open int: Calls N/A Puts N/A

LONDON

20-YEAR 12% NOTIONAL GILT £50,000 32nds of 100%

	Close	High	Low	Prev
Dec	111-00	—	—	111-25
March	111-07	112-05	111-06	112-00
June	111-21	—	—	112-10
Sept	111-25	—	—	112-18
Dec	111-25	—	—	112-18

Est. volume 3,529 (5,586)
Previous day's open int. 5,190 (4,823)
Basis quote (clean cash price of 13¼% Treasury 2004-08 less equivalent price of near futures contract) −4 to +5 (32nds).

10% NOTIONAL SHORT GILT £100,000 64ths of 100%

	Close	High	Low	Prev
Dec	96-32	—	—	96-47
March	96-43	96-57	96-40	96-58

Est. volume 385 (272)
Previous day's open int. 881 (878)

FT-SE 100 INDEX £25 per full index point

	Close	High	Low	Prev
Dec	138.06	138.45	138.40	138.96
March	140.60	141.00	140.40	140.55

Est. volume 152 (321)
Previous day's open int. 2,810 (2,812)

THREE-MONTH STERLING £500,000 points of 100%

	Close	High	Low	Prev
Dec	88.22	88.30	88.22	88.25
March	88.59	88.69	88.57	88.63
June	88.97	89.06	88.97	89.02
Sept	89.19	89.23	89.18	89.25
Dec	89.16	89.18	89.17	89.23

Est. volume 1,915 (3,621)
Previous day's open int. 7,342 (7,505)

THREE-MONTH EURODOLLAR $1m points of 100%

	Close	High	Low	Prev
Dec	92.11	92.10	92.02	92.06
March	92.36	92.38	92.27	92.32
June	92.22	92.23	92.10	92.18
Sept	91.96	91.94	91.87	91.91
Dec	91.66	91.64	91.58	91.82

Est. volume 7,098 (5,783)
Previous day's open int. 21,126 (21,159)

US TREASURY BONDS 8% $100,000 32nds of 100%

	Close	High	Low	Prev
Dec	84-10	84-12	84-02	84-15
March	83-10	83-12	82-27	83-10
June	82-05	82-01	82-01	82-05

Est. volume 3,534 (4,021)
Previous day's open int. 3,293 (3,386)

EXCHANGE CROSS RATES

Dec 13	£	$	DM	YEN	F Fr.	S Fr.	H Fl.	Lira	C $	B Fr.
£	1.	1.437	3.623	291.0	11.10	3.028	4.083	2477.	1.999	73.86
$	0.696	1.	2.521	202.5	7.725	2.108	2.842	1724.	1.391	51.40
DM	0.276	0.397	1.	80.33	3.064	0.836	1.127	683.6	0.552	20.39
YEN	3.436	4.938	12.45	1000.	38.14	10.40	14.03	8510.	6.868	253.8
F Fr.	0.901	1.295	3.264	262.2	10.	2.727	3.678	2231.	1.800	66.53
S Fr.	0.330	0.475	1.197	96.12	3.666	1.	1.349	818.0	0.660	24.39
H Fl.	0.245	0.352	0.887	71.28	2.719	0.742	1.	606.6	0.490	18.09
Lira	0.404	0.580	1.463	117.5	4.482	1.222	1.648	1000.	0.807	29.82
C $	0.500	0.719	1.813	145.6	5.554	1.515	2.043	1239.	1.	36.95
B Fr.	1.354	1.946	4.905	394.0	15.03	4.100	5.528	3353.	2.706	100.

Yen per 1,000: French Fr per 10: Lira per 1,000: Belg Fr per 100.

EURO-CURRENCY INTEREST RATES

Dec. 13	Short term	7 Days notice	1 Month	Three Months	Six Months	One Year
Sterling	11⅝-11⅞	11⅛-11⅝	11⅝-12⅛	11⅝-11¾	11⅝-11¾	11½-11⅝
U.S. Dollar	7¾-7⅞	7⅞-8⅛	8-8⅛	7⅞-8	7⅞-8	8-8⅛
Can Dollar	8⅝-8⅞	8⅝-8⅞	8¾-9	9-9⅛	9-9¼	9-9¼
D Guilder	5⅝-5⅞	5⅝-5⅞	5¾-5⅞	6-6⅛	5⅞-6	5⅞-6
Sw. Franc	1¼-1½	1¼-1½	4⅛-4⅜	4¼-4⅜	4¼-4⅜	4⅜-4½
Deutschmrk	4⅜-4½	4⅛-4⅜	4⅜-4½	4⅜-4½	4⅜-4½	4⅞-5
Fr. Franc	8⅞-9	8¼-8¾	11⅛-12	11⅛-12	11⅛-12	11-11½
Italian Lire	11-15	20-20	18-20½	16¼-17⅛	15½-16½	15-16
B.Fr.(Fin)	7¼-7⅝	7¾-8	8⅛-8¾	8½-8¾	8⅜-8⅝	8⅜-8⅝
B.Fr.(Con)	7-7⅛	8-8½	8¾-9¼	8⅛-8⅜	8¼-8⅝	8¼-8⅜
Yen	8⅛-8⅜	8⅛-8¼	8¼-8⅜	7⅝-7¾	7⅜-7⅝	6⅞-7⅛
D. Krone	8¾-9¼	8¾-9¼	9-9⅛	9-9½	9⅛-9¾	9¼-9¾
Asian $ (Sng)	7⅞-8	8-8⅛	8-8⅛	7⅞-8⅛	7⅞-8⅛	8⅛-8¼

Long-term Eurodollars: two years 8⅞-8¹¹⁄₁₆ per cent; three years 8¾-9 per cent; four years 9⅛-9⅜ per cent; five years 9¼-9½ per cent nominal. Short-term rates are called for US dollars and Japanese yen; others, two days' notice.

MONEY MARKETS

No prospect of lower rates

Short-term interest rates in London finished the week little changed, although periods of six months and longer were slightly higher. The flattening of the reversed yield curve reflected the general market sentiment, with the prospect of any cut in clearing banks base rates moving even further into the future.

UK clearing banks base lending rate 11½ per cent since July 30

Mrs Margaret Thatcher, the Prime Minister, made it clear last week that the struggle against inflation is the overriding priority of the Government, and so be it if this means a long period of high London interest rates.

The Prime Minister's comments were made at a time when the weakness of sterling was putting upward pressure on money market rates. It was partly the obvious determination of the Government to maintain a strong pound, as one of the main planks of its anti-inflation plans, that helped sterling recover and allowed market rates to ease back.

When the pound threatened to fall through $1.40 at one time on Wednesday — just before intervention by the Bundesbank to suppress a rise by the dollar — three-month interbank in London was offered at 11⅞ per cent. There was no indication the market believed a rise in base rates was imminent, but more a feeling that a cut in rates was unthinkable in the near term, even if the US Federal Reserve cut its discount rate.

By Friday the offered rate on three-month money had fallen back to 11¹¹⁄₁₆ per cent, unchanged on the week. Discount houses buying rates for three-month bank bills rose slightly to 11⁷⁄₃₂ per cent from 11³⁄₁₆ per cent, but the general mood of the market remained calm throughout the week.

NEW YORK

(4 pm)

Prime rate	9½
Broker loan rate	9
Fed funds	7¾
Fed funds at intervention	—

Treasury Bills & Bonds

One month	6.28
Two month	7.03
Three month	7.10
Six month	7.31
One year	7.46
Two year	7.95
Three year	8.21
Four year	8.49
Five year	8.64
Seven year	9.03
10 year	9.21
30 year	9.52

BANK OF ENGLAND TREASURY BILL TENDER

	Dec. 13	Dec. 6		Dec. 13	Dec. 6
Bills on offer	£100m	£100m	Top Accepted rate of discount	11.1706%	11.1600%
Total of applications	£542m	£404m	Average rate of discount	11.1583%	11.1095%
Total allocated	£100m	£100m	Average yield	11.48%	11.43%
Minimum accepted bid	£97.215	£97.226	Amount on offer at next tender	£100m	£100m
Allotment at minimum level	13%	27%			

WEEKLY CHANGE IN WORLD INTEREST RATES

	Dec. 13	change		Dec. 13	change
LONDON			**NEW YORK**		
Base rates	11½	Unch'd	Prime rates	9½	Unch'd
7 day Interbank	11⅝	−⅛	Federal funds	7¾	−⅛
3mth Interbank	11⅝	+⅛	3 Mth. Treasury Bills	7.18	−0.31
Treasury Bill Tender	11.1583	+0.0488	6 Mth. Treasury Bills	7.30	−0.41
Band 1 Bills	11⅝	Unch'd	3 Mth. CD	7.70	−0.32
Band 2 Bills	11⅝	Unch'd	**FRANKFURT**		
Band 3 Bills	11¼	Unch'd	Lombard	5.5	Unch'd
Band 4 Bills	11⅝	Unch'd	One Mth. Interbank	4.825	+0.286
3 Mth. Treasury Bills	11⁷⁄₃₂	+⅛	Three month	4.80	Unch'd
1 Mth. Bank Bills	11⅜	−⅛	**PARIS**		
3 Mth. Bank Bills	11⅝	+⅛	Intervention Rate	8¾	Unch'd
TOKYO			One Mth. Interbank	8⅞	Unch'd
One month Bills	8.34375	+0.3125	Three month	8⅞	Unch'd
Three month Bills	7.86188	−0.0450	**MILAN**		
BRUSSELS			One month	15⅝	+⅛
One month	8⅝	Unch'd	Three month	14⅝	Unch'd
Three month	8⅝	+⅛	**DUBLIN**		
AMSTERDAM			One month	10⅜	+¼
One month	5⅞	Unch'd	Three month	10⅞	+⅛
Three month	5⅞	Unch'd			

London—band 1 bills mature in up to 14 days, band 2 bills 15 to 33 days, band 3 bills 34 to 63 days and band 4 bills 64 to 91 days. Rates quoted represent Bank of England buying or selling rates with the money market. In other centres rates are generally deposit rates in the domestic money market and their respective changes during the week.

FT LONDON INTERBANK FIXING

(11.00 a.m. Dec. 13)

Three months U.S. dollars	Six months U.S. dollars
bid 7 15/16 offer 8 1/16	bid 7 15/16 offer 8 1/16

The fixing rates are the arithmetic means, rounded to the nearest one-sixteenth, of the bid and offered rates for $10m quoted by the market to five reference banks at 11 a.m. each working day. The banks are National Westminster Bank, Bank of Tokyo, Deutsche Bank, Banque Nationale de Paris and Morgan Guaranty Trust.

MONEY RATES

Dec. 13	Ov'r-nig't	One Month	Two Months	Three Months	Six Months	Lombard In'v'ntion
Frankfurt	4.25-4.35	4.75-4.90	4.75-4.80	4.75-4.85	4.75-4.90	5.5
Paris	8	8⅞-9	8⅞-8⅞	8⅞-8⅞	8⅞-9⅛	8¾
Zurich	⅞-1⅛	4⅛-4⅞	—	4⅛-4⅞	—	—
Amsterdam	5⅝-5⅞	5⅞-5⅞	—	5⅝-5⅞	—	—
Tokyo	8.46870	8.34375	8.15625	7.86125	—	—
Milan	14⅝-15	15⅛-15⅝	—	14⅝-15	—	—
Brussels	4.10	8⅝-8⅞	—	8⅝-8¾	—	—
Dublin	9¼-9½	10¼-10½	10⅝-10⅞	10⅞-11	11¼-11½	—

LONDON MONEY RATES

Dec. 13	Over night	7 days notice	Month	Three Months	Six Months	One Year
Interbank	11-12½	11⅝-11⅞	11⅝-11¾	11⅝-11¾	11⅝-11⁹⁄₁₆	11½-11½
Sterling CDs	—	—	11⅝-11⁹⁄₁₆	11⅝-11⁹⁄₁₆	11½-11⅜	11⅜-11⁷⁄₁₆
Local Authority Depos	11¼-11⅝	11¼-11⅝	11⅝	11⅝	11⅝	11¼
Local Author'y Bonds	—	—	11⅝	11⅝	11⅝	11⅞
Discount Mkt Depos	11-11⅝	11¼-11⅝	11⅝	11¼	—	—
Company Depos	11⅝-11½	11⅝-11⅝	11⅞	11⅞	—	—
Finance Hse Depos	—	—	11⅝	11⅝	11⅝	11⅛
Treasury Bills (Buy)	—	—	11⅝	11⅛	—	—
Bank Bills (Buy)	—	—	11⅛	11⅛	11	—
Fine Trade Bills (Buy)	—	—	11⅝	11⅝	11⅝	—
Dollar CDs	—	—	7.90-7.95	7.8-7.9	7.80-7.90	7.8-8.0
SDR Linked Depos	—	—	8⅛-8⅜	8-8¼	8-8¼	7⅞-8⅛
ECU Depos	—	—	8⅛-8¼	8⅛-8⅜	8⅛-8⅜	8⅛-8

Treasury Bills (sell): one-month 11⅛ per cent; three-month 11⁷⁄₃₂ per cent. Bank Bills (sell): one-month 11⅜ per cent; three-month 11⁷⁄₃₂ per cent. Treasury Bills: Average tender rate of discount 11.1583 per cent. ECGD Fixed Finance Scheme IV reference rate November 6 to December 3 (inclusive): 11.612 per cent. Local authority and Finance Houses seven days' notice, others seven days' fixed. Finance Houses Base Rate 12 per cent from December 1, 1985. Bank Deposit Rates for sums at seven days' notice 8.25-8.625 per cent (nil). Certificates of Tax Deposit (Series 6): Deposits £100,000 and over held under one month 11½ per cent; one-three months 11¾ per cent; three-six months 11¾ per cent; six-nine months 11½ per cent; nine-12 months 11½ per cent. Under £100,000 10¾ per cent from December 12. Deposits held under Series 5 11¼ per cent. Deposits withdrawn for cash 7½ per cent.

هكذا من الأصل